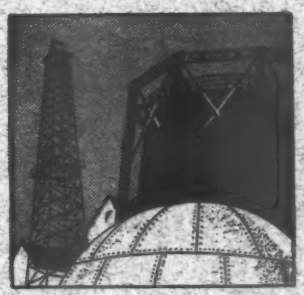
AMERICAN GAS ASSOCIATION MONTHLY



Employee Publications
C. E. WEITZEL

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Natural Gas Being Carried to San Francisco Bay Area

▲

Procedure Control Facilitates Crossing Hudson River With Gas Line

A. G. A. Industrial Gas Salesmanship Course Now Available

The By-Product Coke Industry
F. W. SPERR, Jr.

▲

A. G. A. Approval Requirements Given National Publicity
R. M. CONNER

▲

Wisconsin Commission Must Act on Merchandise Accounting
A. F. HERWIG

February, 1930

Have You the Courage?

★ "Tomorrow's advertiser will not be satisfied to advertise because his competitors do, or because it seems to be 'the thing.' He will advertise because it will be impossible to keep big plants and great aggregations of capital busy without advertising.

"This being true, he will advertise on a scale commensurate with the importance of the job to be done. He will recognize that quarter-page whispers are a waste of breath when trying to attract the great mass of people milling in the hubbub of the marketplace. He will not think in terms of space units or time units, but in terms of assured attention; and he will put up a stake large enough to assure attention.

"Advertising will be done on a scale never before heard of, and why should it not be, when business is already being done on a scale straining our present imagination?

"Advertising will not be a thing apart, that a business can use or not, as it wishes. It either can use advertising and will have to, and in proportion to its need for public attention, or else it will not use advertising because it is a type of business which has no vital need of public attention, or because the men who direct its affairs have not the courage to sit in a game where doubling and redoubling are the order of the day."

★ The four paragraphs on this page, packed with truth and meaning, are quoted from "Tomorrow's Advertisers and Their Advertising Agencies," unquestionably one of the most significant business books of many a year. The author is George Harrison Phelps (original Dodge Bros. and other automotive advertising); the publisher, Harper and Brothers, New York.

AMERICAN GAS ASSOCIATION MONTHLY

Allyn B. Tunis, Editor

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Our Own Who's Who

LVII

DONALD McDONALD

DONALD McDONALD'S business association with the gas industry began forty-four years ago. It was then that he entered the manufacture of gas meters with D. McDonald & Co., at Albany, N. Y., becoming manager of that factory in 1912.

During residence in Albany, Mr. McDonald was at various times president of the Chamber of Commerce of that city, a Civil Service Commissioner, president of the Fort Orange Club, a director and vice-president of the New York State National Bank, and a director of the Union Trust Company. At the time of the Great War he served as director of military census for Albany County and as New York State Chairman of the Second Red Cross War Fund.

At this time he is a director of the American Meter Company, Incorporated, having also served this Company as general superintendent since 1919, and as secretary since 1922 with headquarters in New York City.

Taking an active part in forwarding the cooperative interests of the gas industry as a whole, Mr. McDonald recently has been elected vice-president of the Society of Gas Lighting.

From 1924-1925 he served as a director of the American Gas Association, and subsequently was a member of the Advisory Council. He also was a member of the original committee which brought about the American Gas Association Testing Laboratory in Cleveland. As a member of the American Gas Association Gas Safety Council, he was particularly active in having the code adopted as standard.

An authority on positive displacement measurement, Mr. McDonald has contributed at various times to the literature on this subject. In 1904 he prepared a paper on station meters for the Western Gas Association, which was presented to the Congress of American Gas Associations convening in June of that year at St. Louis. For the fiftieth anniversary issue of the American Gas Journal in July, 1911, he wrote the paper known as "Meters and Meter Makers."

AMERICAN
GAS ASSOCIATION
MONTHLY

VOLUME XII FEBRUARY, 1930 NUMBER 2

Procedure Control Facilitates

Crossing Hudson River With Gas Line

Pontoon used to Float Line

AS a part of its development program, The Central Hudson Gas Company, Poughkeepsie, N. Y., recently planned to install an oxwelded 8-in. high-pressure line tying together three of its plants and also providing service for a number of communities that had not previously been supplied with gas in the Hudson River Valley. The line is designed for an ultimate pressure of 100 lbs. per sq.in., but will carry about 45 lbs. per sq.in. at first.

Two of these plants are about 15 miles apart on the same side of the river while the third plant is located on the opposite side of the river, the width at this point being slightly over a mile.

Construction of the shore line proceeded in accordance with standard practice. An interesting feature was the use of a gas wagon carrying an acetylene generator and cylinders of oxygen to supply the firing-line gang of welders.

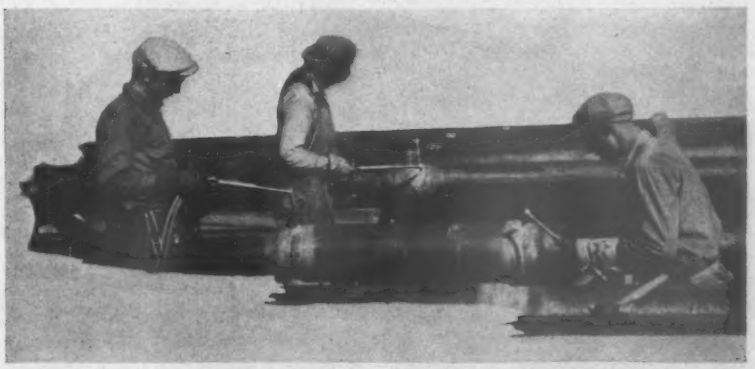
The river crossing, however, did involve special consideration and careful study was required in order to develop the best method for handling this part of the line. In determining the best procedure, the engineers of the gas company and of the pipe line contractor, the L. E. Meyers Company, Chicago, were assisted by the service engineers of the companies supplying gases and equipment for welding. It was decided to use 8-in. diameter extra heavy pipe for the river crossing.

The design developed for the crossing specified that the pipe was to be joined with a standard butt weld and that a reinforcing sleeve consisting of a 36-in. length of 9-in. standard pipe was to be placed over each joint and welded to the pipe at each end. The use of this sleeve also made it possible to test the three welds at each joint by applying pressure inside the sleeve. Specifications called for a test pressure of 350 lbs. per sq.in.

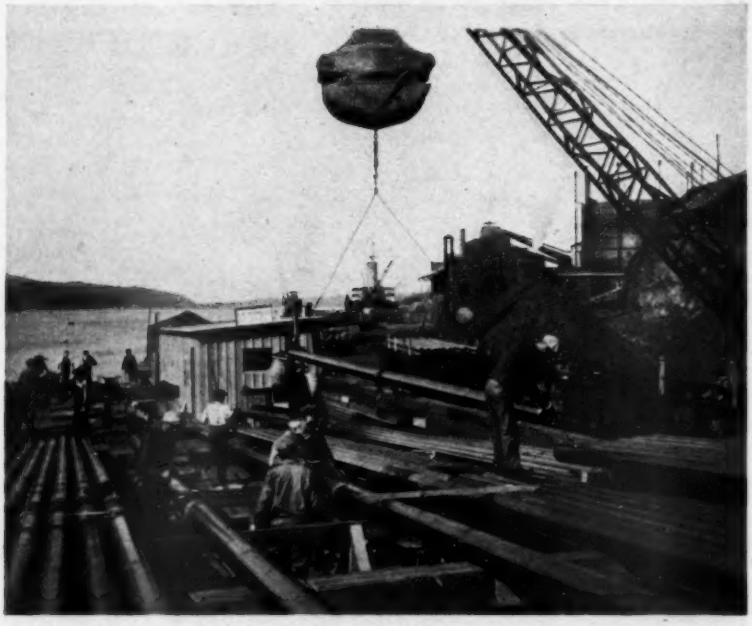
For use in making the crossing a railroad car ferry barge about 280 ft. long was obtained. With a barge of this length it was possible to schedule the various operations so as to insure continuous production at a maximum rate.

The procedure decided upon was, briefly, as follows:

A sufficient number of 40-ft. lengths of 8-in. extra heavy pipe were first double-lengthened to form 80-ft. sections. The sleeves were welded in place and, after testing, the pipe was coated with a protective material. Double-lengthening was done on the



Welding Butt Joint and Sleeve



Unloading Pipe onto Barge

barge so that when this operation was completed the barge was ready to move into position for the crossing. The barge was of sufficient length so that three of these 80-ft. sections could be lined up along the center of the barge, giving three operating positions. In the first position nearest the front of the barge the butt weld was made; in the second position the sleeve was welded; and in the third position test pressure was applied to the sleeve. The barge was moved by means of a pile driver, using lines attached to anchors set in position along the line of crossing.

Before being allowed to work on the double-lengthening or river crossing, welders were required to pass tests for these operations. At all times the work of the welders was under the close observation of a competent inspector.

In preparing the barge for the double-lengthening operation an inclined framework of heavy timbers was built so as to facilitate handling the pipe after it had been placed on the barge. The 40-ft. lengths of 8-in. extra heavy pipe were unloaded directly from the railroad cars onto this framework on the barge. With the pipe placed, it was a relatively simple matter to line up two lengths of pipe and tack weld them in readiness for the butt welding operation. Before lining up the pipe, the sleeve was slipped over the end of one of the lengths. These sleeves were 36-in. lengths of 9-in. standard pipe with the ends cut square. Each one had a small hole drilled and tapped in readiness for applying the pressure test. After tacking, the pipe was rolled toward the center of the barge, where the butt weld was made, a single weld being used for this operation.

The pipe was then rolled to the next position, where the sleeve was moved into position over the butt weld, its correct location being determined by a mark on the pipe. Small cold chisels were used as wedges to obtain even spacing of the sleeve. Two operators work simultaneously in welding the sleeve. In order to facilitate welding, each end of the sleeve was swaged down to fit the pipe snugly as the weld progressed. That is, each welder would heat a short section of the end of the sleeve ahead of his weld and then hammer it down into contact with the pipe wall before proceeding with the weld.

The welded 80-ft. lengths were then ready for testing. Owing to the difficulty of obtaining a suitable compressor, it was decided to use compressed nitrogen for testing. Nitrogen was furnished in cylinders at a pressure of 1,800 lbs. per sq.in. Being chemically inert, nitrogen is particularly well adapted for such high-pressure tests. It is, of course, universally understood that oxygen must never be used under any circumstances for making pressure tests.

In making a test, a pressure gauge, supplied with suitable fittings, was attached to the hole in the sleeve and connected by means of high-pressure hose with a regulator attached to a cylinder of nitrogen. After a pressure of 350 lbs. per sq.in. had been applied to the sleeve, the welds at each end of the sleeve were painted with soap suds and carefully inspected. Each sleeve was required to hold the test pressure of 350 lbs. for 15 minutes without showing any drop on the gauge. After testing, the 80-ft. lengths were coated.

A total of 72 double-lengths were prepared, as it was estimated that the crossing would require about 5,700 ft. of pipe. As each joint required three welds, this meant that a total of 216 welds were made during the double-lengthing operation. The work was carried on continuously, the welders working in three 8-hr. shifts. Double-lengthening was completed in about five days.

While the double-lengthening was in progress, preparations were made for handling the pipe during the river crossing. Heavy rollers were mounted along the center line of the barge for its entire length. These rollers were made from standard cable reels of the proper size, the core being filled with concrete to provide increased strength. In order to avoid damaging the protective coating on the pipe, the surface of each roller was covered with rope. The roller at the front end of the barge was mounted about 8 ft. above the deck of the barge and from this point the height of the supports for the rollers decreased regularly toward the rear end of the barge so that the pipe would be supported in an inclined position. This was done in order to minimize any tendency toward bending as the pipe was fed from the barge in making the crossing.

Two series of smaller rope-covered rollers were also provided, one on either side of the central line. These facilitated handling the double lengths of pipe in bringing them into proper position on the main rollers.

A large automobile truck provided

with a winch furnished the power necessary for moving the pipe into position.

Since it would be difficult to transfer materials to the barge after the crossing started, provision had to be made in advance for every possible contingency. Gases for welding were supplied from the gas wagon that had been used very successfully in laying the line on shore. This wagon carried an acetylene generator and several oxygen cylinders. An ample supply of drums of calcium carbide, and cylinders of oxygen was loaded on the barge. Cylinders of dissolved acetylene also were supplied for use while recharging the generator and also as an emergency measure. Cylinders of compressed nitrogen were also required for testing purposes.

A generator driven by gasoline motor supplied the current for the electric lights necessary to permit continuous operation. When the crossing started the men were required to work on alternate 8-hr. shifts, but it was later found advisable to change this to alternate 12-hr. shifts.

A cook house was installed on the barge so that meals could be served as required.

When all of the materials and supplies had been placed on the barge, it was moved into position to begin the crossing.

The first step was to move three of the 80-ft. lengths of pipe on the rollers in the center of the barge. After a sleeve had been slipped over the end of one pipe at each joint, the joints were lined up and welded. The two sleeves toward the rear of the barge were welded. After testing the rearmost sleeve, the end of the line was drawn to shore and anchored.

Once the line had been started, a definite sequence of operations was established which continued throughout the entire crossing. Drawing the line to shore made room for another 80-ft. length at the front end of the line on the barge. By means of a cable attached to the winch on the automobile truck, a double-length was drawn from the pipe onto the small rollers set parallel to the central line. The length of pipe was then pulled on these rollers to the forward end of the barge, where it was moved into position on the main rollers. A supply of sleeve was maintained at this point of the barge and one of these was slipped over the end of the pipe before it was lined up. Tack welds were made at four points, after which the clamp was removed and the butt weld completed.

Tested at 350 Pounds Per Sq.in.

While this was being done two welders were welding the sleeve over the joint at the second position toward the rear of the barge. At the third position a test was being applied to the completed joint.

The three operations of making the butt weld, welding the sleeve, and testing, all required about the same time for completion. When all three operations were finished the barge was moved 80 ft., another length of pipe placed in position and the cycle repeated.

A pile driver was used in moving the barge, anchors were placed in position ahead of the barge and lines were run from these over stanchions on the barge to the winches on the pile driver.

A cable from the truck winch on the barge was also attached to the line to facilitate moving along the rollers.

Pontoons were used to keep the line from sinking too rapidly to the river bed. These were welded steel oil storage drums which were attached to the line at 50-ft. intervals. Eight pontoons were used, the last two being moved forward as necessary, so that six were always in position supporting about 300 ft. of the line.

In spite of a severe storm the crossing was completed in 11 days. The line was simply laid on the bed of the river and subsequently divers using hydraulic jets cut a channel for the pipe at points where there were abrupt changes in the river bed, particularly near the shores and at the sides of the dredged navigation channels.

The completed river crossing was tested by applying 150 lbs. per sq.in. pressure, and requiring the line to hold this pressure for 12 hours without loss being shown on a recording gauge attached to the line.

This crossing furnishes additional evidence of the value of procedure control in solving difficult welding problems.

Gas Lands in Dispute

Values of approximately $100,000,000 are involved in a dispute over New Mexico oil and gas lands, emanating from an old land grant made when New Mexico was a part of Texas. When the Mexican war ended, the Guadaloupe-Hidalgo treaty guaranteed that the United States would uphold Spanish grants in ceded territory. Title is being claimed by disputants to a grant from the state of Coahuila, Old Mexico, to J. C. Beales, dated as far back as 1832. Over a million acres of land are involved in the suit.

Placing Pipe Along Ditch in San Joaquin Valley

Natural Gas Is Being Carried to San Francisco Bay Area

NATURAL Gas is focusing the eyes of many American industrial leaders on Northern California. Factories and homes in the San Francisco Metropolitan Bay area now are being served by that most economical and efficient fuel. The total cost of making natural gas available to the Pacific Gas and Electric Company's customers throughout its system amounts to something like $26,000,000.

"The company is not planning merely to serve natural gas to large centers of population and industry," explained A. F. Hockenbeamer, president of the P. G. and E., "but has brought the benefits of this cheaper fuel to substantially the entire territory served by it. Approximately 100 communities are being reached by our mains."

Advent of natural gas in this Pacific Coast section has led to the introduction of local and national advertising campaigns by the Pacific Gas and Electric. It is telling the world that San Francisco "now offers a further inducement for industrial development, for the Pacific Gas and Electric Company has an abundance of natural gas for all industrial and domestic fuel purposes."

Natural gas brings a two-fold benefit to the Bay area and intervening points. Because of its greater heat qualities, it means a substantial reduction in customers' costs and it seems to stimulate and develop industry because of its particular adaptability for practically all kinds of manufacturing. Its high heat qualities and cleanliness will make it especially beneficial to many lines of specialty plants—glass and pottery works—as well as plants requiring large boiler installations.

Customers in San Francisco and nearby communities are being served a mixture of natural and artificial gas, with 700 B.t.u. as compared with 550 B.t.u. in the former supply of manufactured gas. This mixture, experience in other cities has proven, will cause a minimum of trouble and inconvenience through adjustment of burners and appliances.

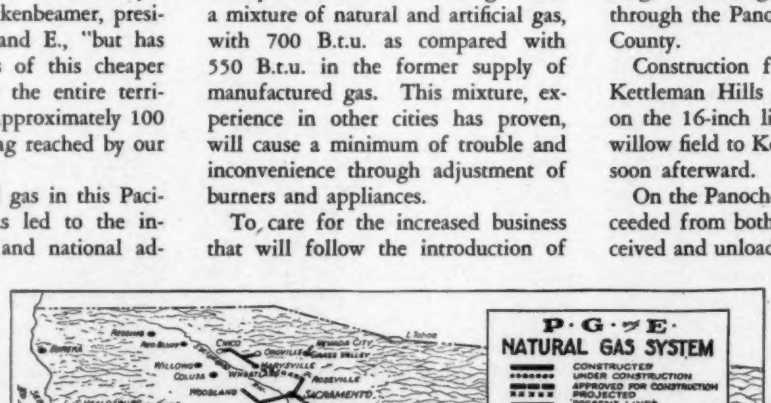
To care for the increased business that will follow the introduction of natural gas, storage capacity in San Francisco and Oakland has been enlarged in the two cities to care for more than sixty million cubic feet.

Work on the first unit of the 250-mile pipe line that brings natural gas from the San Joaquin oil fields to Oakland, San Jose as well as San Francisco and adjacent territory was started about a year ago and it was completed at a rapid rate and cost of about $13,000,000. Construction began at Tres Pinos, San Benito County. This section of 20-inch line is 53 miles long, extending from Tres Pinos through the Panoche Pass into Fresno County.

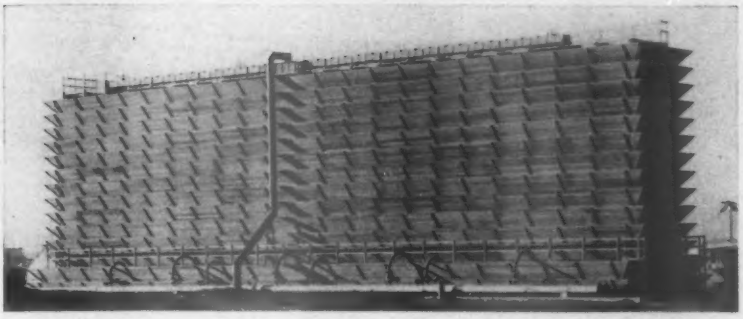
Construction from Panoche to the Kettleman Hills gas fields and work on the 16-inch line from the Buttonwillow field to Kettleman Hills started soon afterward.

On the Panoche Pass unit work proceeded from both ends. Pipe was received and unloaded at Tres Pinos and Mendota, Fresno County, at the rate of a trainload a day. From these points trucks rushed it to the right-of-way over mountain trails and virgin prairie, with tractors on hand to yank the loads over steep grades and out of soft spots.

Ditching machines cut two miles of trench, four feet deep,



Map of Natural Gas System Serving San Francisco Bay Area



Water Cooler Compressor Plant

daily and hundreds of men averaged better than a mile a day laying the main. The 30-foot pipes were welded into 90 or 120-foot lengths and lowered into the trench; then the whole line was welded into one continuous tube and given air tests to guard against the possibilities of leaks.

On the units south of Panoche the same methods were used, with pipe going into the right-of-way from every convenient railroad point and with huge gangs of workers maintaining at least the same record of construction as between Tres Pinos and Panoche.

Plans for the natural gas system call for a 16-inch pipe line from the Buttonwillow field, near Taft, to the Kettleman Hills. From this area a 22-inch line was run to a point near Mendota, tying up with the 20-inch tube into Milpitas. At this point a meter station was erected, from which two lines were laid, one into San Francisco and the other to Oakland and other eastbay cities.

Fresno is supplied through a branch line leaving the main pipe line at Huran.

The Kettleman Hills gas field is hailed by experts as the greatest discovered in California, with the Buttonwillow field a close second. Several thousand acres have been proven in each region and a single well in the Kettleman Hills produces 45 million cubic feet of gas daily, in addition to 3800 barrels of almost pure gasoline.

While the Buttonwillow gas is "dry," that from the Kettleman Hills is "wet" and must be turned into an absorption plant, where the gasoline is "squeezed" from it.

Rapidly nearing completion is the second unit of this enormous project. When it is finished there will be in Northern California 800 miles of gas transmission lines and about 6,000 miles of interconnected distribution mains, making what is claimed to be the largest interconnected gas distribution system in the country.

This second unit involves the construction and operation of 312 miles of pipe. The new line starts at the company's compressor plant in the Kettleman Hills and comes north on the west side of the San Joaquin Valley, making gas available for the communities adjacent to the line. It also provides a supply of natural gas for the Sacramento valley and the North Bay counties.

The San Joaquin system ties in with the company's coast feeder lines at Milpitas and Richmond. These tie-ins produce a duplicate supply or standby service in the event of the failure of either of the main lines. This valley line is so routed as to make natural gas service available to practically every community in the territory through which it passes.

A cross-country line will be extended from a point between Vernalis and Tracy to Milpitas, traversing the vicinity of Livermore and Pleasanton. At a point near Vernalis, a tap line consisting of 80 miles of 16-inch pipe will make natural gas available in Stockton, Sacramento and the upper Sacramento Valley. This branch line will be tapped to serve Modesto, Oakdale, Waterford and adjacent territory.

In the vicinity of Martinez the main feeder line will be tapped for an extension into the North Bay counties. The construction of the valley line calls for the installation of 22-, 20- and 16-inch pipe, making an expenditure of approximately $13,000,000.

The combined system is capable of delivering 250,000,000 cubic feet of gas per day, and upon completion straight natural gas will be brought to all communities served by the system.

Million Dollar Compressor Plant

Employee Publications

C. E. WETZEL

The United Gas Improvement Company, Philadelphia, Pa.

THERE are three kinds of employee publications—good, bad and indifferent.

They have evolved from bulletin board notices to mimeographed sheets, to printed leaflets, to pretentious magazines in many cases. They have become accepted tools in the conduct of business. Practically every railroad employee, every telephone company employee and a large proportion of gas and electric company employees and workers in many other fields in the United States receive company periodicals. There are now more than a thousand of them printed in our country and as many more house organs of a purely advertising nature, issued in the interests of sales departments. They come and go.

In the employee class they range in circulation from a few hundred to as many as 50,000 copies an issue. More than 100 employee magazines or papers are issued by public utility companies at regular intervals—usually monthly. A perusal of some fifty of this group carrying September, 1929, date lines indicates that a fair proportion of them are doing a good job. They show evidence of careful editing, are well-printed and attractively made up. They contain information that should be of interest and value to utility workers and appear to reflect the policies and aims of the companies publishing them. Others are wishy-washy—nondescript. Quite a few others are poorly edited, slapped together in a slipshod manner and largely filled with drivel. If these latter attract any attention at all, it must be occasional wonderment as to why anyone should spend real money to issue them. Certainly, they are not representative of the companies they represent.

Several years ago, an editor of a pioneer employee magazine claimed that it promoted the health of the employees, urged safety first, made the employees feel that they were important parts of the organization, increased their interest and efficiency, strengthened confidence in the company, increased the workers' knowledge of the business, encouraged suggestions, promoted study, widened acquaintanceships, stimulated thought by encouraging employees to write for publication, urged proper care and education of employees' children, made suggestions for home-making, revealed the human side of industry, provided a medium in which to explain company policies, decreased labor turnover, helped to sell the product, increased departmental co-operation, developed future employees in the home, called attention of executives to capable employees, represented the company at home and abroad, taught the necessity of employees ac-

(Continued on page 81)

This paper was presented at the last annual meeting of the Publicity and Advertising Section during the 1929 A. G. A. Convention.

Wisconsin Commission Must Act on Merchandise Accounting

By A. F. HERWIG
Director, Wisconsin Public Utility Information Bureau

A. F. Herwig

TO obtain the views of general merchandisers of gas appliances and public utility companies, with reference to the new accounting law passed at the last session of the Legislature applying to merchandise sales of public utilities, the Wisconsin Railroad Commission held a public hearing on November 29 at Madison. The Commission must issue an order to comply with the law, which requires that utilities shall keep separate accounts to show all profits or losses resulting from the sale of appliances or other merchandise accounting, and that no such profit or loss shall be taken into consideration in establishing rates.

Ewald Haase, Milwaukee, representing the gas companies, and G. W. Van Derzee, Milwaukee, representing the electric companies, presented a general outline of accounts to which merchandise may be charged. Representatives of contractor dealers, plumbers associations, heating contractors, and hardware men's associations, said they had no definite suggestions to submit as to the manner in which the Commission should set up an accounting system. They argued, however, that the present practice of utilities is unfair to the general merchandising business.

The utility spokesmen pointed out with definite examples that they could not draw an arbitrary accounting distinction for all companies between promotional activities and purely merchandising sales, because they said that a specific accounting classification for all companies would do grave injustices to some companies due to local conditions. Spokesmen for contractors, when asked by Commission representatives to suggest a definite method whereby the Commission could determine what was promotional expense or what was purely merchandising expense, said they could not offer a specific plan, but that they believed the Commission would be able to work out an accounting classification that would be satisfactory to them.

The Commission intended to issue an order before the first of the year, but due to the complexity of the situation it is likely that the order of the Commission will be postponed for several months.

Representatives of contractors devoted their entire testimony to a general criticism of the trade practices of utilities, claiming that utilities conducted their merchandising at a loss and charged this loss to their general operating expenses. They offered no evidence to substantiate this contention. The Commission informed the contractors that it had no jurisdiction regarding trade practices, but was concerned at this hearing only in developing an accounting classification to comply with the law. The Commission informed the contractors that one company made sufficient profit on its merchandising sales to enable it to reduce rates. The utility men pointed out that the sale of appliances always has been and will continue to be an inseparable part of the utility business. They contended that the life and growth of the gas and electric industries depended upon promotional sales methods.

G. W. Van Derzee said that future rate reductions depend largely upon greater individual use of gas and electric service, and that this increased use of utility services must be stimulated almost entirely by promotional methods. "Up to this time," he said, "only the utilities have been willing to pay for and to carry on systematic promotional programs to develop customer acceptance of appliances and greater individual use of accepted appliances. Newspaper advertising, as well as other promotional activities, must be employed even to a greater extent than at present to acquaint the public more clearly with the benefits the people can derive from greater individual use of gas and electricity."

Mr. Haase said that if gas companies were not in the appliance business aggressively, their service could not long survive.

"The gas companies' interest in the degree of success, satisfaction and reliability that the customer finds in his appliances, is vital and no other agency can undertake to safeguard that interest," he continued. "Without an enlightened promotional activity the business itself is in the most serious jeopardy because without it the service to the customers must sooner or later become inadequate and unsatisfactory, or unattractive, which results in curtailment or discontinuance of the patronage.

"The major portion of promotional activity must be continually exerted in keeping gas equipment renewed if the service is to be so satisfactory and attractive as it must be to be successful. Continuous special efforts must be made to induce customers to replace antiquated, inadequate and inefficient equipment. Gas business, once acquired, is by no means permanently secured. Merchandising must be carried on as a purely promotional activity in territory that has not been supplied before.

"As, for example, the areas being reached by high pressure transmission lines. Recent experiences show that selling of appliances in those areas by local merchants must be supplemented by special promotional activities on the part of the utility, including inducements to remove appliances in use to be replaced by appliances using gas.

"Under these circumstances, it is manifestly difficult to make a division along prescribed lines as to the expenses pertaining to merchandise, as distinguished from those that are promotional. It would seem as though it were but proper that only such expenditures should be charged to merchandising as a merchant would reasonably make and still leave him a profit in the price that he is able to sell his article for."

Industry's Economic Aspects Discussed Before Society of Gas Lighting

AN address delivered before the Society of Gas Lighting, in session at the Hotel Astor, New York City, January 9, by Paul Ryan, statistician of the American Gas Association, was received with so much interest that a resolution was adopted directing that the paper be printed for general circulation.

Discussing "The Gas Industry's Economic Aspects at the New Year," Mr. Ryan said, "If one could confine within a single generality all of the complexities that go to constitute the economic aspects of the gas industry today, it might possibly be attempted with the statement that as the industry confronts the New Year, management has probably a keener appreciation than ever before not only of its problems, some of which are grave, but of its opportunities, most of which are great."

Touching upon some of these problems, Mr. Ryan referred to natural gas. In this connection he said, in part:

"Data on the natural gas industry as a whole will not be available for some time, but it is not unlikely that the production of this fuel increased some 20 per cent during the year. This is the result in part, no doubt, of the tremendous strides made in the last 3 or 4 years in the efficiency and economy of transporting gas. The tensile strength of pipe has been increased to withstand the high pressures, methods of preventing rust and deterioration have been devised which prolong greatly the life of this equipment, the efficiency of compressors has been increased while new and more economical methods have been perfected for the laying of pipe lines.

"In consequence of these advances, the last few years have witnessed remarkable activity in the building of long trunk lines for the transmission of natural gas, mostly from the Southwest and West. This activity has been attended by the development of great producing areas containing almost unbelievable reserves, such as the great Monroe and Richland Parish fields in Louisiana, the Amarillo field in the Texas Panhandle and others. Furthermore reputable geologists assure us that these great reserves, particularly in the Southwestern fields, will not be exhausted for generations to come. Many such fields have continued to yield generously long after their estimated time of exhaustion, and in addition exploration is constantly leading to the discovery of new fields while further drilling has uncovered greater pools, in supposedly dry areas, at lower strata.

"Transportation problems offer no technical obstacles to the delivery of gas at long distances from the fields, as is demonstrated by the recent completion and successful operation of a 540 mile line to St. Louis.

"The major problem involved is an economic one, that is whether in any particular situation natural gas can be delivered to sell at a profit in competition with other forms of fuel, more particularly by-product coke oven gas. The spread in these transportation costs is so great, ranging from 17.5 cents per thousand cu.ft. per 100 miles down to 3.5 cents or even lower, that each projected expansion becomes almost a problem in itself.

"For these reasons it appears somewhat improbable that natural gas will be substituted for the manufactured fuel in the East, both because of the enormous supply that would be required for such a move, and because it would necessitate in many instances the scrapping of highly efficient by-product coke oven gas plants. It is more likely that the chief outlet for natural gas in the East will be through purchases by manufactured gas utilities to enrich their own manufactured product, as this procedure would reduce the cost of gas manufacture and at the same time provide for a financial return on the sale of natural gas more in line with its high heat content than when this gas is distributed in an unmixed form."

Gas-Heated Glass Coffee Flask at Your Favorite Lunch Counter

By EUGENE D. MILENER
Industrial Research Representative, A. G. A.

EVERYBODY likes a good cup of coffee. On the coffee served in a restaurant or lunch room frequently hangs the reputation that makes it pay a profit or otherwise.

When the drug store soda fountains began serving lunches, their owners soon found that success or failure hinged largely on their ability to serve a good cup of coffee.

In hotels, the large gas-heated urns have been brewing good coffee for years, but these large urns were unsuited for the drug store counter and the delicatessen shop.

Druggists and others tried fancy nickel plated percolators and other devices with varying success, but realized that the coffee was not just right.

About this time, the Massachusetts Institute of Technology, with Prof. S. C. Prescott at the helm, started through research to find out in a scientific manner just how the best cup of coffee should be prepared.

Prof. Prescott and his staff worked diligently for several years on this and other subjects relating to coffee. Among other things these coffee testers found that coffee cooked in glass or crockery tastes "just right." Hundreds of students and others at "Mass. Tech." agreed most heartily with them.

But what does this mean commercially? Have you noticed the way the more progressive drug store chains and sandwich shops are building up good will with delicious coffee cooked in little glass flasks? The gas flame licks up around these flasks, cooks the coffee perfectly and keeps it ready for serving instantly.

With these clean glass flasks the customers can see that their coffee is prepared in a sanitary manner and the keen appetite thus whetted is not disappointed when they sip coffee that has only come in contact with glass.

This is just another instance where the quality obtainable only by applying gas heat is being capitalized by the stores that are making the most progress in their field.

The By-product Coke Industry*

By F. W. SPERR, JR.

Director of Research, The Koppers Co., Pittsburgh, Pa.

F. W. Sperr, Jr.

OUR modern civilization is founded on iron and coal. Take away these two materials and you take away the bone and sinew of life as we live it today. Imagine the vanishing of iron and coal and you must imagine the vanishing of our skyscrapers, steamships, railroads, automobiles and electric machinery, our everyday tools and utensils, our best dyes and drugs, and hundreds of other materials that come directly or indirectly from coal. Furthermore, you must imagine the disappearance of nearly every facility of heat, power and swift movement that makes a single year of now equal to a hundred years of yesterday.

Each one of us has at his command thousands of iron slaves to do the drudgery that was borne by human slaves only a few hundred years ago. Annihilate coal and iron and these servants of mankind would vanish as completely as Pharoah's army. The work of the world would be done by beasts of burden and the arduous toil of men and women.

The modern, coordinated use of coal and iron was practically unknown two hundred years ago. Yet it was the discovery that coke made from coal could be used to make iron from iron ore that laid the foundation of the modern iron and steel industry, and made possible all those tremendous developments in the production and utilization of power and materials that appear commonplace today.

This discovery was first put on a commercial basis by Abraham Darby in England some time between 1730 and 1735. The story goes that Abraham Darby, after six sleepless nights, succeeded in making the first cast of iron from a coke-fed blast furnace, and thus started the regular production of iron made in this way.

Previous to this discovery, all of the iron made in the world was produced with the use of charcoal, made from wood. Vast forests were sacrificed to keep pace with the demand. Finally the demand became too great; some other fuel had to be found. Many attempts were made to use soft coal. They were absolutely unsuccessful. It was necessary to find a fuel which would not soften and cake and evolve tarry vapors when heated. Finally the development led to making coke from coal and using the coke in the blast furnace. Coke is a clean, hard, porous fuel with exactly the right burning properties. It can stand the crushing action of the enormous columns of iron ore and limestone in the blast furnace.

Some idea of what it would mean for the iron industry of the United States to go back to the use of charcoal can be gained from the fact that a typical charcoal iron blast furnace producing 160 tons of iron per day would require each year all of the timber from nearly 7 square miles of land. For continuous operation, with re-planting of the forests as they were cut down, there would have to be held in reserve for this single, small furnace 273 square miles of timber land. If all of the iron now produced in the United States were made in charcoal furnaces, 4700 square miles of forest timber would have to be cut down every year to supply their needs. Also, there would have to be held in reserve at all times for the use of our iron industry alone, 188,000 square miles of forest, or more than the entire area of the New England and Middle Atlantic States combined.

For many years, all the coke used in the iron industry was made in bee-hive ovens. In these ovens the gases from the coal and part of the coal itself were burned with complete wastage of the by-products. Technical men all over the world keenly realized the enormous waste of these valuable materials. For one hundred years there is a record of thousands of attempts to solve the problem of recovering these by-products. This long period of struggle is the best proof of the great difficulty of the problem. It was really not until shortly after the year 1900 that by-product coking was put on a successful basis.

I wish to emphasize that the steady development of the by-product coke oven which has occurred within less than thirty years, has been just as important to the iron industry and to modern civilization as the substitution of coke for charcoal two hundred years ago. One of the principal reasons for this is that the coals suitable for making bee-hive coke were being rapidly diminished. The problem of what the iron industry should do when these supplies would become exhausted was one of very serious concern. Fortunately, when by-product coking was successfully developed, it was found that the coke was not merely as good as the old bee-hive coke, but it was proven actually better. It was also found that an enormously greater number of coals could be coked. For all practical purposes, the development of the by-product coke oven has indefinitely prolonged the life of the modern iron and steel industry, because the new reserves of coking coal that it has opened up and that are actually in sight are far more than sufficient to take care of the estimated iron ore resources of the world.

You will now have realized that the by-product coke oven was developed primarily for the iron and steel industry. But just as there have been material by-products in the form of gas, tar, ammonia, benzol, toluol, and hundreds of their derivatives, so there have been many economic by-products. Of these I can mention only a few:

1. The by-product coke oven is now recognized as the most economical source of manufactured city gas. The modern gas works no longer employs the D-shaped retorts formerly pictured in the school books, but consists essentially of by-product coke ovens.

2. The scientific coking of coal made possible by the by-product oven has produced the highest quality of domestic coke. This strictly modern coke

* Radio talk delivered over station WCAE, Pittsburgh.

is one of the most promising remedies for eliminating the smoke nuisance and making our cities clean.

3. In this great era of highway construction, the tar products from by-product coke ovens play an indispensable part. Materials produced from tar are used in many of our most familiar streets and roads. Without the by-product coke oven, the building of good roads would be most seriously handicapped.

4. Although all of us wish that war may never again arise, we must never lose sight of the necessity for national preparedness. The vital part played by the by-product coke oven in this connection during the Great War must not be forgotten. The by-products of coal—particularly toluol and benzol—furnish the most important high explosives. All the other products of the modern coke oven, especially fertilizers, medicines, antiseptics and preservatives, play a vital part in warfare.

5. I have mentioned a few of these economic by-products because of their tremendous importance and because they are often neglected by the popular mind. I ought to mention a large number of other great industries that have been built on the products of the by-product coke oven—some of the essential parts of your radio, some of the best known medicines, your perfumes, flavors, photographic chemicals, disinfectants, wood preservatives, and the hundreds of dyes that color every modern fabric, all originate in the by-product coke oven.

The United States now leads the world in the manufacture of by-product coke. It is coking the enormous total of 74 million tons of coal per year in these ovens. Imagine, if you please, three railroad cars of coal being transformed into coke and by-products every minute of the day and every day of the year and you will gain some conception of what this figure means.

There are 83 by-product coke plants in the United States. These are located in 70 different towns or cities, scattered throughout 20 states. These 83 plants are owned by more than 50 separate companies. The capital invested in these plants is about two billion dollars.

One-third of all the by-product coking capacity of the United States is located within a hundred-mile radius of Pittsburgh. In other words, of those three carloads of coal that I have just mentioned, one carload (nearly 50 tons) is being transformed into coke every minute in the Pittsburgh District. The largest by-product coke plant in the world is the Clairton Plant of the Carnegie Steel Company, located only twelve miles from the heart of Pittsburgh. This plant cokes nearly 11 million tons of coal per year—nearly as much as all of the by-product plants of France combined and more than half as much as all the by-product plants of Great Britain.

There is now being built on Neville Island, close to the center of Pittsburgh, a splendid plant in full view of all of us who travel up and down the Ohio river. This is the plant of the Davison Coke and Iron Company which will soon be coking 2,000 tons of coal per day.

It will embody the most modern equipment for the production of coke and the efficient recovery of the by-products. As the Pittsburgh District enjoys the benefits of this large proportion of the by-product coke industry, this district has also contributed enormously to the development of this industry. Ninety per cent of the modern by-product coking capacity of the United States and Canada has originated with a Pittsburgh concern—The Koppers Company. The by-product ovens of this company are now to be found all over the world.

The coking of coal, with recovery of the by-products, has been made possible only through the highest type of scientific and engineering research. The future of the industry is very great, but the fullest possibilities can be obtained only through a continuation of this research. For this purpose there is in Pittsburgh the largest research organization of its kind in the world. It is not too much to say that Pittsburgh is the center of the by-product coke industry.

Kelsey Elected to Board

Clarence H. Kelsey, chairman of the Board of the Title Guarantee and Trust Company and of its affiliated company, the Bond and Mortgage Guarantee Company, has been elected a member of the Board of Trustees of The Consolidated Gas Company of New York to fill the vacancy caused by the death of James N. Jarvie.

Shows Device at A. G. A. Headquarters

Members of the Accident Prevention Committee of the American Gas Association, meeting at headquarters on January 17, were much interested in the demonstration of a novel lifting device. This is a jacket, which first was introduced to the gas industry to facilitate the moving of ranges.

Cyril G. Morais, formerly with the advertising department of the Public Service Electric and Gas Company of New Jersey, is the inventor of "Muvafast," and staged the demonstration at headquarters. He has resigned his position with Public Service, and now is president of his own company with headquarters in Newark, N. J.

Muvafast Lifting Device

Mr. Morais said that two men in the employ of a large eastern utility, with the assistance of this device, delivered 33 ranges in less than 3 hours in an apartment dwelling. By the usual methods it required nine hours to deliver less than twenty-five ranges under the same general conditions.

With their hands free, men are enabled to open doors before them, climb stairways and carry heavy loads through narrow passages. This device is made of drop-forged steel and the webbing material strong enough to withstand a pull of more than half a ton. In a test it required 1200 lb. to break this lifting device.

JESSE F. SHERWOOD DIES.

Jesse F. Sherwood, house heating engineer of the Brooklyn Borough Gas Company, died December 10, 1929.

Cortelyou Praises Gas Accountants

THE accountant is no longer the step-child of business, tolerated but not wanted," Geo. B. Cortelyou, president of the Consolidated Gas Company of New York, told members of the Society of Gas and Electric Accountants at their annual dinner at the New York Athletic Club last December.

"He is now taking his place in the family circle, a member of the family council, and heir in his own right to the family patrimony," Mr. Cortelyou added. "Nowhere has his recognition been greater than in the public utility field, and nowhere has his contribution to successful results been greater than in the utility industry. Modern business is leaning more and more heavily upon him.

"In the era of mergers and consolidations through which we are passing his place is indeed indispensable. Upon the accuracy and integrity of his work depends the safety of vast aggregations of capital, owned by millions of investors and supporting an army of employees. Great industries rely upon the data he furnishes not only to tell them the results of past operations but to guide them in their future policies. In the broad view, he is a creator and conserver of values no less than a recorder of them. Engaged in the most matter-of-fact activities, he yet must possess vision and imagination. Immersed in voluminous detail, he must keep his sense of perspective and see his work in its proper relation to the aims and policies of the organization of which he is a part.

"Perhaps my idea of the future of the accountant is sufficiently indicated by this brief résumé," the speaker continued. "This society has seen him advance from a somewhat doubtful and uncertain status to one of unquestioned dignity and importance. It has not only seen it, it has helped bring it about. It has seen accountancy raised to a science comparable with engineering and other physical sciences. It has helped bring this about, too. The utility industry is peculiarily indebted to the accountant. To him is due the admirable and scientific system of utility accounting which has been tried and tested, upheld and vindicated in scores of cases before commissions and courts. It stands as a monument to his ability and his industry.

"As we observe the trend of modern business, it does not require the gift of prophecy to see an ever-widening sphere of usefulness for the accountant. The future will make even larger demands upon him than the past. The greater size and complexity of industrial operations and the increasing ramifications of corporate and intercorporate relationships and activities will place added responsibilities upon his shoulders. Not until he has spoken the final and authoritative word can a true picture be had of the actual condition of great business enterprises as revealed by their accounting records. How vital it is that he know and speak the truth.

"What your society and others are doing to raise the standards of accounting and to perfect the accountant in the principles and technique of his profession are guarantees not only that he is ready to meet the demands of the present, but that he will be prepared to assume the larger tasks of the future."

Doherty Executives Pay Honor to Henry O. Loebell

ON Thursday evening, January 9, Henry O. Loebell, vice-president of The Surface Combustion Company, was the guest of honor at a dinner tendered by the entire executive staff of the organization assembled in Toledo, Ohio, for the annual sales conference. This event signalized the completion by Mr. Loebell of 25 years' service with Henry L. Doherty & Company.

Henry O. Loebell

Having worked up from a job as "trouble shooter" for a gas company to a prominent executive position in the Cities Service organization, Mr. Loebell has spent the past quarter of a century in advancing the use of gas in industry and in developing equipment for the application of this fuel, as well as working towards the solution of some of the larger problems of the gas industry in general.

Firmly convinced that, with proper interpretation of heating requirements and proper equipment, the development of gas companies must become increasingly great, he has utilized available science in combustion engineering to determine heating energy requirements using gas as a fuel and, from this work, has placed the combustion engineer in a position where direct contributions are being made to industry.

In answering a request for a few remarks as to the future of the gas industry, Mr. Loebell pointed out that at the present time the outlook is so big and so bright that anyone not fully acquainted with the whole picture can hardly conceive the growth which is to come.

At the conclusion of the dinner, Mr. Loebell was presented with a scroll signed by the entire executive staff in appreciation of his services to the company and many congratulatory letters and telegrams were read.

Natural Gas Reaches Atlanta, Ga.

NATURAL gas from the Monroe and Richland gas fields in northeastern Louisiana reached Atlanta, Ga., January 21.

With appropriate ceremonies in that city which were attended by a large number of city officials, public utility, banking and other interests, J. H. White, president of Southern Natural Gas Corporation, opened the valve for the "blowing out" of the last section of the interstate transmission line which the corporation has constructed from Louisiana through Mississippi and the Birmingham district of Alabama to Atlanta. The event marked the completion of the corporation's main pipe line, which is one of the longest single high-pressure natural gas transmission lines in the world.

Including branch and feeder lines the Southern Natural Gas Corporation's system will comprise over 900 miles of pipe line, and for the first time will make natural gas available for domestic and industrial consumption in many of the most important sections of the industrial Southeast. The cost of the initial system exceeded $25,000.000.

A. G. A. Approval Requirements Given National Publicity

By R. M. CONNER,
Director, Testing Laboratory

ANOTHER avenue of approach to the homemaker with the complete message of approval activities of the A.G.A. Testing Laboratory directed to her benefit has been opened by the desire of The Curtis Publishing Company, of Philadelphia, to provide information useful in general purchasing for the home.

In connection with a "Clearing House of Consumer Information," the *Ladies' Home Journal,* Department of the Modern Homemaker, has prepared and issued upon request leaflets on subjects allied to domestic activity. One of the most recent is Leaflet No. 201, "Gas Ranges," which presents the A.G.A. Approval Requirements for gas ranges in detail.

This 12-page leaflet devotes a full page to a discussion of the Laboratory's establishment and functions; the meaning and limitation of the Laboratory Approval Seal, which is shown prominently in a Benday reproduction; the mechanics of Laboratory approval and the effect which the program of the A.G.A. has had in approving appliances.

The major portion of the remainder of the booklet is devoted to a presentation of the approval requirements themselves in simplified form. Wherever deemed necessary, brief discussions follow clauses of the requirements to show the reason underlying their formulation. A section, "Definitions of Terms and Range Parts," is also presented to further simplify complete understanding of the requirements.

The leaflet on gas ranges is the first of a series of similar ones which have been requested of the Laboratory to be published by The Curtis Publishing Company. Within the next few months the requirements for space heaters, flexible gas tubing, water heaters, central house heating appliances, clothes dryers and incinerators are to be treated in the same way as the range requirements.

The distribution of this information direct to the homemaker will, it is believed, create a more complete understanding of the approval activities of the A.G.A. Testing Laboratory among a portion of the public from which cooperation is essential to insure the complete success of our testing program.

Housewives the country over take advantage quite generally of the service afforded by the Ladies' Home Journal in these leaflets. The general clearing house seeks to bring to the consumer standards, specifications, codes and grades, applying to food, materials and equipment that have been formulated by Federal and state governmental agencies, scientific organizations, manufacturing organizations, trade associations, and in some cases individual manufacturers. The purpose of these leaflets is to help the consumer make a wise choice—to know what qualities to look for and what questions to ask in making purchases. They attempt to answer the housewife's question how to buy and more specifically, what to buy.

"New Business" Man No Novelty Thirty-five Years Ago

FREDERIC C. EGNER, retired consulting engineer of Washington, D. C., claims to have had experiences in the gas industry which come to few men even at his age of 84 years.

Frederic Egner

Discussing the matter of "New business departments," Mr. Egner said that phase of the industry was no novelty 35 years ago. In May, 1911, he wrote about it in the *Journal of Gas Lighting, Water Supply, &c.,* an English publication. He said:

> About sixteen years ago, being then the Engineer of the Norfolk (Virginia) Gas Company, I decided that to increase sales of gas it was necessary to do more than just let people know we had gas to sell, and to give them good service when they applied at the Company's office for a meter. The idea was not at all novel with American—and I believe not with British, French, German, or any other—gas engineers, as, of course, you know it was in vogue at that or even a much earlier date.
>
> But, confining myself to my experience of that day, I beg to submit the following facts: I engaged a young man, formerly a salesman for a clothing house, now assistant-manager of a leading American "Cracker" company, to get "new business"—leaving it to him as to the "how." He did a number of things before and since successfully done nearly everywhere—such as installing gas-cookers in stores and having demonstrators in attendance; advertising in newspapers, and by "scorchers" in the way of handbills, &c. One of his posters had upon it, in large scarlet letters, the words "FIRE! FIRE! FIRE!" and then proceeded to set forth the well-known, even at that time (pardon my saying this), advantages of gas for domestic purposes.
>
> Did he get the business? "Well, you bet he did." He succeeded admirably, being incited by a commission for every new consumer he obtained—a privilege allowed, by the way, to every employee of the Company at the same time. He secured orders where there were gas-mains; and miles from where there were any. And right here it may be stated that if it had been left to this enthusiastic "New Business Man" and not to a hard-headed Board of Directors and to an old-fashioned President of the Gas Company, besides a no doubt (in the salesman's opinion) somewhat slow Engineer, gas-mains galore would have been put down where they would not have paid anything for years to come, but would undoubtedly have lost the Company's money. Still, right here, it may be admitted that maybe

Mr. C. W. Hare, whom you mention, would have been in his right place, instead of the old fogies who were.

Why would it not be a very good thing to put the purser instead of a captain in charge of a steamship great or small? Such a course would be somewhat analogous to the contention that the "New Business Man"—of whom I have given one illustration—be put in charge of everything about a gas company's plant and business.

It is undoubtedly due to the very sad and monumental ignorance, as well as assumption, that the "New Business Man" and his backers forget themselves as much as they do.

FREDERIC EGNER.

Washington, D. C. May 12, 1911.

The A. G. A. Christmas Party

Group at A. G. A. Christmas Party.

By MARGARET M. MARKEY

Miss Markey

WITH that rollicking tune of jolly good fellowship—"Hail! Hail! the Gang's All Here"—echoing through Headquarters, our Christmas Party was in full swing. Miss McQueen and Mr. Berghorn led the march around the offices to collect "our gang," and we are very proud of the accompanying party flashlight showing the members of A. G. A. staff.

By the twinkle in his eyes we all knew Major Forward was substituting for Good Old St. Nick. After a few merry remarks by Santa and his helper, Mr. Hartman, all those who answered present received their Christmas gifts—and since a Christmas party is never complete without a grab bag—as they passed the tree they made a grab. There was much gay laughter and banter as the different grabs were exhibited. It was even necessary in some cases to resort to bartering amid great hilarity.

Mr. Berghorn acted as our leader, and as soon as the gifts had been tucked away, we all joined in singing the following Christmas Carols—"Oh Come, All Ye Faithful," "Hark! The Herald Angels Sing," "Silent Night, Holy Night," "It Came Upon the Midnight Clear," and "The First Noel."

Miss Jessie McQueen, the A. G. A. Home Service Counsellor, made the punch for the party. I am sure she would be delighted to send the recipe to the readers of the A. G. A. MONTHLY. It is heartily endorsed as a dandy thirst-quencher after singing. While the refreshments were being served, the merrymakers again broke into song, but this time jazz tunes held sway; some of the favorites being the "Pagan Love Song," "Singin' in the Rain," "Vagabond Lover" and "Sleepy Valley."

After awhile an adventuresome couple took possession of the floor. However, this monopoly did not last long. About 2:00 P.M. the party began to break up until there was nothing else to do but dim the lights on our lovely tree and happily wend our way home to continue the Christmas festival.

McCarter Medal Goes to Louisiana Man

H. J. Hebert

THE first McCarter Medal ever awarded to anyone in Baton Rouge was presented to H. J. Hebert, Baton Rouge Electric Company employee, for having successfully resuscitated M. H. Stephens from gas asphyxiation. The presentation was made by Mayor Wade H. Bynum at the annual Breco Christmas tree and party.

Last February, M. H. Stephens was dressing in a tightly closed bath room with a gas heater on, which soon consumed the oxygen in the room and began giving off carbon monoxide gas, overcoming him.

Mr. Hebert applied the Schafer Prone Pressure Method of Artificial Respiration, while members of the company's first aid team, the company physician and the fire department's first aid team, which is equipped to give oxygen, were called. By the time these latter ones arrived, Mr. Hebert had the patient breathing again, but oxygen was administered and the patient was turned over to the physician, who gave medicine to relieve the after effects.

Shortly after the accident, application for the Thomas N. McCarter Medal and Award was made through the American Gas Association, and after receiving the approval of the Accident Prevention Committee and the Executive Board of the American Gas Association, Mr. McCarter gave the Medal the latter part of May.

LANDS BETHLEHEM CONTRACT

The Surface Combustion Company, of Toledo, Ohio, recently announced the receipt of a contract for four continuous sheet pack furnaces, four continuous pair furnaces and one wire patenting furnace. The pair and pack furnaces are of the recently developed walking beam type and will be installed in the Sparrows Point, Md., plant of the Bethlehem Steel Company.

G. M. Karshner Quits Consolidated Gas Account Ill Health

G. M. Karshner

G. M. KARSHNER, for many years general sales manager of the Consolidated Gas Company, New York, has resigned his position to regain his health. Mr. Karshner plans to travel and rest for at least six months, following which he will resume his active interest in the gas industry. Mr. Karshner has just completed a term as chairman of the Commercial Section of the American Gas Association, in which capacity he successfully inaugurated several activities of national significance to the industry. He served as vice-chairman of the Section for two years, and has long been active in Association affairs.

Mr. Karshner was born in 1879, and entered the gas business in 1901, spending nine years with the Henry L. Doherty organization at Denver, Col., and elsewhere. He started in the appliance department at Denver, and then entered the new business department as a domestic salesman. Later he became an industrial salesman, and then assumed charge of the industrial department of the company. Finally he became assistant to Clare N. Stannard.

Mr. Karshner joined the Consolidated Gas Company eighteen years ago as an industrial salesman, and was later placed in charge of the company's domestic sales force. He was given supervision of other divisions, and finally was made general sales manager.

"The resignation of Mr. Karshner is a decided loss," Oscar H. Fogg, vice-president in charge of commercial relations, said in making the announcement. "His long service in the interests of the company has been of outstanding value and it is the earnest desire of all of his associates that his recovery will be speedy and complete.

"It is gratifying to know that Mr. Karshner will return to the industry."

Mr. Karshner's associates, headed by Colonel Fogg, tendered him a testimonial dinner on December 19, at the New York Athletic Club and presented him with a suitably engraved gold watch. Among the speakers of the evening, all of whom referred to Mr. Karshner's service to the company, were Colonel Fogg; H. C. Davidson, secretary; J. R. Fenniman, treasurer; N. T. Sellman, director of sales and utilization and assistant secretary; F. R. Barnitz, president of the Northern and Central Union Gas Companies; E. P. Prezzano, vice-president of the Westchester Lighting Co.; Maynard H. Spear, president of the New York and Queens Gas Co., and A. J. Peters, assistant general sales manager. Mr. Peters acted as a toastmaster.

John Lambing, Pioneer Gas Man, Dead

JOHN A. LAMBING, 86, a member of the American Gas Association who had a leading part in developing early oil fields of western Pennsylvania, died Monday morning, December 30, in the home of a daughter, Mrs. Ray Smith, with whom he had been residing in Crafton, Pa., a suburb of Pittsburgh. Mr. Lambing, who was born in Manorville, Armstrong County, Pennsylvania, started work as a boy in the Oil Creek oil fields soon after Colonel Drake's discovery. With the outbreak of the Civil War he joined a Pennsylvania cavalry troop and served till the end of hostilities.

Following his discharge from military service, Mr. Lambing and his brother, James Lambing, formed a partnership as Lambing Brothers and the two became widely known for their aggressive wildcatting operations in the Parkers Landing, Petrolia, Karns City and Trautman Fields of Pennsylvania.

In 1880, the partnership having been discontinued in the meantime, Mr. Lambing went to Bradford, Pa., and he operated in that field till 1886. Following this he entered the service of the Vandergrift interests and he supervised the laying of the first pipe line for gas from the Hickory Field in Washington County, Pennsylvania, to Wheeling, W. Va.

A year later, still in the employ of the Vandergrifts, Mr. Lambing superintended the laying of a gas line from the Cygnet, Ohio, field to Toledo, Ohio. After this he worked for the Vandergrifts for a short time in Detroit, Mich., and then went into the contracting business on his own account.

Among the larger contracts which he handled in succeeding years were gas pipe line projects in Parkersburg and Wheeling, W. Va., and in Montreal, Canada. In these enterprises he had a financial interest in addition to that of contractor. In 1915 Mr. Lambing acquired some oil-producing properties in the neighborhood of New Castle, Pa., and as these demanded little of his personal attention he virtually retired from active participation in business.

Kernit-Lacey Merge

THE Kernit Incinerator Company and W. R. Lacey Corporation announced their amalgamation January 1. The Kernit Incinerator Company will continue the manufacture of the Kernit and Kleenburn incinerators, thus offering to the gas companies, through one source, a quality-line of gas-fired incinerators, with a wide price range.

This amalgamation will provide the gas industry with the services of an organization headed by W. R. Lacey and Louis Stotz, whose combined efforts and years of experience in the sale of gas appliances will team up with the personnel of the Kerner Incinerator Company offices, thoroughly experienced in incineration problems and located in over 100 cities through the country.

The stability and character of the Kernit Incinerator Company is assured through its affiliation with the Kerner Incinerator Company, the largest and most successful incinerator organization in this country.

School of Household Arts

THERE are pungent new aromas permeating the atmosphere of Fourteenth Street, near Irving Place, New York, and many are the persons who have made an interesting discovery by "following their noses." At the end of the trail, which takes you to the second floor of No. 147 East Fourteenth Street, you find a big, beautiful apartment—so big that it holds an auditorium among other things—known as the homemakers' forum of The Consolidated Gas Company. Here you will meet the home service staff, which recently packed up its pots and kettles at the West Fifty-seventh Street office and hied itself to the more ornamental and centrally located confines of the Gas Company's newest building.

Miss Jane Tiffany Wagner and her corps of home experts, who can cook a meal and still look as dainty and unruffled as the advertisements would have you believe, are making the household arts positively irresistible.

Miss Jane T. Wagner

At least, that's the opinion held by some thousand women, who dropped in to look over the beautiful new department and enroll for the Winter cooking classes.

When you walk into the new forum, you feel for all the world like a guest being welcomed into a very beautiful home by a daintily besmocked hostess. Soft lights, delicate color in the walls, draperies and rugs, and light maple furniture of early American design lend the charm of home to the great rooms, and the odor of cooking food completes the illusion.

And cooking goes on most of the time, for there are classes almost every day of the week in the large auditorium, which seats several hundred persons and has a real kitchen occupying its stage. In this kitchen you will see the latest type of gas range, refrigerator, sink, cabinets and tables, all in pale yellow, with deeper yellow curtains at the windows—an ensemble which makes a regal swan out of the former ugly duckling of the household.

All about the auditorium are interesting rooms and booths, glimpsed through graceful archways in the reseda green walls of the main hall. The dining-room is the piece de resistance of the layout—an early American room that looks exactly like the proper setting for a Puritan housewife of old New England—a quaint maple table, chairs and china cupboards in the chaste lines of our early tradition, a dark marble fireplace, pewter pitchers and mugs, calico china and beautiful glassware. Here the pupils of our cooking classes will see various types of meals, and party and tea menus served in their proper setting.

The eye of the artist will be pleasurably stimulated by a glimpse through the rear galleries about the auditorium, where the offices of our home demonstrators are, for each room is exquisitely designed and furnished in soft greens and maplewood.

If you are interested in saving your youth, your strength or your looks, the booths adjoining the auditorium will show you how. There is the testing kitchen, another completely and beautifully equipped "cookery," where recipes are tried out; the model laundry, where washing and ironing are denuded of their arduous character by gas; and the model basement, where gas takes the place of the garbage man and the furnace tender.

Miss Wagner, director of the forum, has arranged a Winter program of lec-

One of Group of Offices

View of Auditorium with Demonstration Platform in Rear

tures and cooking demonstrations which covers a host of interesting things for every homemaker and all of these lectures are open to any interested person.

For the convenience of those who live in other districts of Greater New York there are similar lectures and demonstrations at various affiliated company buildings and district offices. The forum will be a busy place this winter for it has planned a number of special features for this year, including a Thursday evening lecture each week by Miss Nellie Wong, of Columbia University, whose domestic science experience has been gathered both in China and this country; afternoon teas for invited guests and various club and school demonstrations.

Atlantic City to Have Merchandising Fair

AN annual national merchandising exposition to be known as The American Fair, conducted by the city of Atlantic City and not an institution for private profit, will be inaugurated this year from July 17 to August 27, in the $15,000,000 Atlantic City Auditorium, the largest building of its kind in the world, located on the Atlantic City Boardwalk.

The Fair—to which there will be no admission charge—is intended, according to announcement by resort and auditorium officials, to set up a new and unique medium of business for industry of all types throughout the United States.

It was explained by Mayor Ruffu and by Lincoln G. Dickey, general manager of the Atlantic City Auditorium, that the Fair will provide manufacturers and communities with a new means for promotional and merchandising activities.

Oklahoma Utilities Co. Opens Bristow Headquarters

THE Oklahoma Utilities Company, with B. P. Stockwell as general manager, has opened its new headquarters at Bristow, Oklahoma. The new quarters house, in addition to general offices of the company, the offices of the Southwest Pipe Line Company and the Southwest Production Company, affiliated interests.

Indiana-Kentucky Gas Corp. Is New Subsidiary

FRANK P. PARRISH, president of the Missouri-Kansas Pipe Line Company, has announced the formation of the Indiana-Kentucky Gas Corporation, as a subsidiary company. One thousand shares of no par value common stock were issued, this being retained by the parent organization.

Cumulative Index of Rate Structure Committee Reports 1921—1929

By KURWIN R. BOYES

Secretary, American Gas Association

THE reports of the Rate Structure Committee of the American Gas Association are invaluable in any consideration of the subject of gas rates. This Committee has been active for ten years and the foremost rate men of the gas industry have generously contributed their knowledge, experience and time to the preparation of its reports. With the thought of calling attention to the contents of these reports that they may be continually useful, there is presented below a cumulative index. It is hoped that this index will promote greater use of the many valuable contributions on the subject of gas rates contained in the reports of the Rate Structure Committee. The Index follows:

1921 Report—J. D. Shattuck, Chairman. (Included in 1921 Commercial Section Proceedings. Out of print.)
General Statement.
Three Part Rates (Allocation of Accounts)—F. C. Freeman and F. C. Weber.
Discussion.

1922 Report—J. D. Shattuck, Chairman. (Included in 1922 General Sessions Proceedings. Out of print.)
General Statement.
Discussion of Cost of Service and Structure of Rates.—Ewald Haase.
A Short Cut Method for Cost Allocation in Determining Unit Costs for a Three Part Rate.—Douglass Burnett.
Definitions of Terms and Theories of Allocation.—Compiled by T. V. Purcell.

1923 Report—T. V. Purcell, Chairman. (Available in separate pamphlet at $.50 a copy and in 1923 Proceedings at $1.50 a copy.)
General Statement.
Cost of Service and Rates Based on Same.—Ewald Haase.
Short Discussion on the Allocation of Costs.—G. I. Vincent.
Court and Commission Decisions.—F. L. Daly.
Tabulation of Types of Rates.
Preparation of Rate Cases.—F. C. Hamilton.
Bibliography of Rates (1876—1923)—O. E. Norman (Replaced by Bibliography published in 1925 and supplement published in 1926.)

1924 No Report.

1925 Report—Ewald Haase, Chairman. (Available in 1925 Proceedings at $3.00 a copy.)
General Statement—Selling a Proper Rate Structure:
Alabama rate; On rate structure in general; Cost of Service.
A Study in Class Rates.—Ewald Haase.
Rates for House Heating.—T. V. Purcell.
Rates for Industrial Gas.—T. V. Purcell.

1926 Report—T. C. O'Hare, Chairman. (Available in separate pamphlet at $.10 a copy and in 1926 Proceedings at $3.00 a copy.)
General Report:
Recommendations and conclusions; Accurate rate structures not so essential in early days; Dearth of good rates in the rate lists; Education of customers in rate matters; Necessity for introduction of better rate structures; Tremendous possibilities in the development of domestic load with proper rate structures; Effect of fixed charge in a rate; Some practical aspects of rate structure; Minimum charges; Optional rates.
Rate Lesson—Principles of Rate Making for Gas Companies.—T. V. Purcell, Chairman. Available in separate pamphlet at 25 cents a copy.
Development of Off Peak or Seasonal Rates—Ewald Haase, Chairman.
Practical Rate Making—G. I. Vincent, Chairman.
Optional Rates—Decision of Georgia Commission.
Bibliography (1876—1925)—O. E. Norman. (Published separately at $.20 a copy.)

1927 Report—Douglass Burnett, Chairman, (Available in separate pamphlet at $.10 a copy and in 1927 Proceedings—out of print.)
General Statement:
Rate situation; Organizing rate work in a company; Rate Changes; Consumption per customer and prospects for its increase; Classification of rates, sales and revenue; Budgeting of income; Industrial gas rates; Water heating rates; Cost and pricing for valley business; Inducement forms of rates; Notes on Costs methods; Charts useful in rate studies; Rate literature.
Production demand as an element in rate structure for certain industrial uses of gas—Ewald Haase.
Bibliography (1876—1926)—O. E. Norman. (Published separately $.05 a copy.)

1928 Report—G. I. Vincent, Chairman. (Available in separate pamphlet at $.15 a copy and also included in 1928 Proceedings at $3.00 a copy.)
General Statement:
Two broad divisions of the committee's work; Progress during year; Optional and class rates; House heating rates.
Special and Off-Peak Rates—T. V. Purcell.
Suburban and Rural Gas Rates—L. R. King, Chairman.
Proposed Definitions—R. H. Knowlton.
Classification of Sales and Revenue—C. S. Reed.
Practical Rate Making—A. G. King, Chairman.

1929 Report—L. R. King, Chairman. (Available in separate pamphlet at $.15 a copy and will be included in 1929 Proceedings when published.)
General Report:
Keep drilling; Optional rates; Class rates; Competitive rates; Priority rates; Progress; Gas rate articles; Recommendations.
Allocation of Customer Costs and General Expenses—R. H. Knowlton, Chairman.
Practical Rate Making—F. A. Newton, Chairman.
Suburban and Rural Gas Rates—C. G. Eichelberger, Chairman.
Practical Handling of Rate Cases—C. S. Reed, Chairman.
Competition with Butane and Other Fuels—Ewald Haase, Chairman.

Random Notes of Home Service Activities in Gas Industry

BY JESSIE McQUEEN

Home Service Counsellor of the American Gas Association

MRS. ANNA J. PETERSON, of The Peoples Gas Light and Coke Company, Chicago, in response to an inquiry for information on her radio talks says: "I am unable to send you copies of my radio broadcasts because I never read my talks. I speak to my audience in a very intimate, chatty manner. The only time I consult any written work is when I give recipes." Mrs. Peterson has created a wonderful good will for her gas company and herself in the friends she has made by this chatty, intimate manner that she uses over the radio.

Miss Gladys Peckham, director in charge of the home service organization of the Central Public Service Corporation of Chicago, reports home service directors in their gas company subsidiaries in Augusta and Macon, Ga.; Johnson City, Tenn.; Roanoke, Va.; Portsmouth, N. H.; Plymouth, Mt. Clemens and Owosso, Mich.; Hagerstown, Md.; Hanover, Sayre and Chambersburg, Pa.; and Mobile and Montgomery, Ala.

Miss Katherine Rathbone of the Southern Counties Gas Company, Santa Monica, Calif., writes us that she publishes a newspaper article every Sunday called "Old Ways and New." Her company distributes a booklet entitled, "Getting the Best that Gas Can Give You," which gives in condensed form to the home-makers among other things, 12 simple rules for saving gas, "How to Read Your Meter"; "How to Get Better Results From Your Gas Range by Knowing How to Adjust the Burners"; "How to Get Better Results From Your Water Heater"; "Heating Your Home"; "Triple Tests of Approved Appliances for Your Protection," and others. This is a somewhat similar plan to Hints for the Housewife which is published by the American Gas Association. If you care to know more about this booklet of the American Gas Association you may write in to New York for information. It is furnished at a slight cost per copy.

Miss Jessie Read of the Consumers Gas Company, Toronto, Ontario, Canada, reports an interesting suggestion in connection with the giving of certificates. "I think it is customary with most Home Service Departments to give a certificate for attention and regular attendance during the course of lectures and our company has formed the policy of allowing the holder of a certificate a discount of $5 on any gas appliance which they purchase at a value of more than $20. Of course, it must be purchased in their own name. This makes the certificates of a little more value to the homemaker or business girl and they are, I think, a little more appreciated."

A Home Economics Club composed of home economics graduates in Hartford, Conn., has recently been organized with Mrs. Arra Sutton Mixter, home service director of the Hartford Gas Company, as president. Mrs. Mixter also is doing some interesting and quite unusual work in the Village Street Mission working largely with Italian and Polish women. "We shall use an inexpensive gas range with a heat control and the menus will be simple and inexpensive enough so the women can use them in their own homes," says Mrs. Mixter.

Mrs. Ruth Wakefield, of the Brockton Gas Light Company, Brockton, Mass., is a charter member of the newly organized Quota Club in their city. The Quota Club is an international club and the membership is composed of women representing different professions.

The Consolidated Gas Electric Light and Power Company of Baltimore has recently opened its new home economics hall. Miss Anne Trentham, the home service director, issues a monthly bulletin called the "Culinary Courier" and the December 1929 issue has devoted considerable space to pictures of the new auditorium, as well as to detailed announcements of the work to be carried on.

We are not acquainted with any Home Service Department which is doing more intensive work with a Blue Star Home than is being done in Worcester, Mass. Practically all of the class and club work of the department is carried on in the Sawyer Demonstration Home. The house of four stories was built by the W. H. Sawyer Lumber Company and each room has been most carefully planned as to furnishings, useful equipment and its attractive arrangement. The demonstration kitchen is in the basement and yet it has five full-sized outside windows. The boiler, incinerator, space heater and meters are also on this floor so that each class can readily visit them. The Home Service Department has the entire house at its disposal and many clubs like to hold their meetings there and then go down to the kitchen for a short or long demonstration depending upon their own program. This has been the third year under this program and Mrs. Lyda Flanders, the home service director, feels that it has been well tested and is certainly proving satisfactory for the needs of her company.

The Brooklyn Union Gas Company, Brooklyn, N. Y., of which Miss Ruth Soule is home service director, held the formal opening of its new building in Jamaica the week of December 9.

The soft green walls hung with early prints, the Oriental rugs and beautiful reproductions of early American furniture presented an effect seldom associated with business offices. A huge Christmas tree, elaborately decorated and brilliantly lighted, struck the keynote of Christmas, and the whole building was gay with laurel and holly wreaths.

The Home Service Division served refreshments and showed the visitors about the auditorium, in which classes began the first of January. Recipe sheets and program cards were issued.

An account of this department, "Gas Service in Queens," is in the January number of the A. G. A. MONTHLY.

Our New Members

Gas Companies

The Arkansas Fuel Oil Company, E. N. Watkins, Secretary, Ardis Building, Shreveport, La.

Godfrey L. Cabot, Inc., James J. Cabot, Vice-President, Union Trust Building, Charlestown, W. Va.

The Kansas Pipe Line & Gas Company, E. R. Duree, General Manager, Farmers Union Building, Salina, Kan.

The Claremont Gas Light Company, Charles Hatfield, Treasurer, Crescent Street, Claremont, N. H.

The Missouri Natural Gas Company, C. K. Wirth, General Manager, 1017 Olive Street, St. Louis, Mo.

The Louisiana Oil Refining Corp., B. P. Crittenden, Vice-President, First National Bank Building, Shreveport, La.

The Hoosier Gas & Light Company, K. P. Hankins, Manager, 114 East Washington Street, Greensburgh, Ind.

The Piedmont Utilities Co., Inc., A. A. Whittlock, Secretary Manager, 11th Avenue, Hickory, N. C.

The Kentucky Utilities Company, G. T. Bogard, Vice-President, 1350 Starks Building, Louisville, Ky.

The Amere Gas Utilities Co., R. D. Gwynne, General Manager, Beckley, W. Va. (Box 1118)

The Western Natural Gas Co., S. Stewart, Secretary, c/o Public Utility Investment Co., Salina, Kan.

The Louisiana Gas & Fuel Co., N. C. McGowen, Vice-President, Shreveport, La.

Manufacturer Companies

The Mt. Vernon Furnace & Mfg. Co., Carl Schweinfurth, President, Mt. Vernon, Ill.

The Steam and Combustion Company, Charles B. Page, President, 205 W. Wacker Drive, Chicago, Ill.

The Francis N. Williams Co., Francis N. Williams, President, 208 Somerset Avenue, Taunton, Mass.

The McDonald Engineering Corp., R. T. Bacher, President, 220 Varet St., Brooklyn, N. Y.

The Trolley Supply Company, Mr. E. M. Gain, President, Box 545, Massillon, O.

(Continued on page 76)]

Convention Calendar

First Regional Sales Conference for Natural Gas Companies,
Pittsburgh, Pa.,
February 10, 11.

Empire State Gas & Electric Association, Commercial Section,
Rochester, N. Y.
February 13 and 14.

New England Gas Association,
Hotel Statler, Boston, Mass.
February 19 and 20.

Oklahoma Utilities Association,
Tulsa, Okla.
March 11, 12, and 13.

Illinois Gas Association,
Springfield, Ill.
March 19 and 20.

Accounting Section Conference,
Stevens Hotel, Chicago, Ill.
April 3 and 4.

Distribution Conference,
Hotel Statler, St. Louis, Mo.
April 9, 10, and 11.

New Jersey Gas Association,
Asbury Park, N. J.
April 25.

Mid-West Gas Association,
Waterloo, Iowa
April 14, 15, and 16.

Southern Gas Association,
Savannah, Ga.
April 22, 23, and 24.

Empire State Gas & Electric Association, Accounting Section,
Briarcliff Lodge, N. Y.
April 24 and 25.

Pennsylvania Gas Association,
Galen Hall, Wernersville, Pa.
April 29, 30, and May 1.

Western Div., Natural Gas Dept. A. G. A.
New Orleans, La.
First week in May.

Joint Production and Chemical Conference,
Hotel Cleveland, Cleveland, Ohio
May 21, 22, and 23.

Canadian Gas Association,
Halifax, N. S.
June 24 and 25.

Michigan Gas Association,
Grand Hotel, Mackinac Island, Mich.
June 30, July 1, and 2.

Pacific Coast Gas Association,
Hotel Huntington, Pasadena, Calif.
Sept. 9-12.

American Gas Association, Municipal Auditorium, Atlantic City, N. J., October 13-17, Alexander Forward, 420 Lexington Avenue, New York, N. Y., Managing Director.

Modern Gas Ice Box is of Revolutionary Design

THROUGH financing by J. J. Bodell of Providence, R. I., there has been developed by Comstock and Wescott, Inc., at their laboratory in Boston, a new refrigerator in which apparently gas is the logical fuel. Work on the refrigerator has been going on quietly for five or six years and only recently has it been deemed feasible to announce the construction of the first commercial units of this automatic gas refrigerator.

The new unit is revolutionary in design and cannot be included under any previous classification of refrigerators. It employs water as the refrigerating fluid, air for cooling and mercury vapor as the source of energy.

The essential principle is simple, and consists of the following steps:

A miniature mercury boiler causes mercury vapor to be discharged into a venturi tube, which entrains and compresses water vapor drawn from the cooling unit in the ice box chamber. Under the reduced pressure so produced, the water in the cooler evaporates rapidly, producing refrigeration. Both the mercury vapor and water vapor condense, and the heavy mercury is used to pump the water back up to the original height, while the mercury flows back into the boiler.

Such a system is simple in construction, has no moving parts or mechanical valves, operates without any noise, and goes through a continuous cycle of operation. The pressure inside of the system is largely much below atmospheric, the greatest internal pressure developed being about the same as normal air pressure.

The cost of running the new refrigerator is apparently small, because for the 7½ cu.ft. box it employs a constant-burning gas flame, which will use about 2000 to 3000 cu.ft. of gas per month.

The unit can be placed either in the basement, or can be put into the ice box itself. It is expected that it may also be of value in connection with the development of house-cooling systems, because it will be possible to build it conveniently in large sizes.

Mr. Wyer's Statement

SAMUEL S. WYER, Consulting Engineer, Columbus Ohio, has requested The A. G. A. MONTHLY to print the following statement:

STATEMENT OF SETTLEMENT OF
LIBEL CLAIMS
AGAINST
PROFESSOR EDWIN LEAVITT CLARKE
AUTHOR
AND
D. APPLETON AND CO., PUBLISHERS
OF
CLARKE'S "THE ART OF STRAIGHT THINKING"

This text, on pages 336 and 337, says:

"Dishonest propagandists frequently endeavor to use well-known and reputable persons or institutions as vehicles of their deceit, in order to make it carry a maximum of conviction. A significant illustration of this kind of thing occurred early in 1925. The Smithsonian Institution endorsed and sent out under government frank as one of its official documents a conspicuously mendacious and misleading 'report' regarding the hydro-electric situation in Ontario, in which it was declared that in this case government ownership was a notable failure. This 'report' was given wide publicity through the press. Sir Adam Beck of the Ontario Hydro-Electric Power Commission promptly and overwhelmingly replied. His pamphlet was, of course, not sent out under government frank. It is significant of the bias of the American press, moreover, that this pamphlet received very little attention from newspapers and magazines.—43."

The publishers had a clause in their contract that the author was required to protect the publisher in any libel action, and on January 2, 1930, the publishers stopped the distribution and sale of this book until the author made a satisfactory settlement with the undersigned.

On January 5, 1930, Edwin Leavitt Clarke, Professor of Sociology in Oberlin College, Oberlin, Ohio, author of the above text, agreed, in settlement of libel claims initiated by Samuel S. Wyer, author of the above mentioned Smithsonian report, to have the publishers, D. Appleton and Company, *strike out everything* after the first sentence in the above paragraph. This to include *all future copies* as well as *all copies now in circulation* that can be recalled for the removal of the libelous matter.

On January 7, 1930, the publishers agreed to carry out the above settlement.

(SIGNED) SAMUEL S. WYER,
Consulting Engineer
Beggs Building
Columbus, Ohio.

Jan. 7, 1930.

Affiliated Association Activities

Oklahoma Utilities Association

THE twelfth annual convention of the Oklahoma Utilities Association will be held March 11, 12 and 13 at Tulsa, convention headquarters being at the New Tulsa hotel. Committees have been appointed and details of arrangements are being worked out rapidly.

The plan on which the Oklahoma convention was established several years ago of having general sessions in the morning and diversion meetings in the afternoon, will be followed again this year. This association embraces the electric, gas, electric railway and telephone branches of the utility industry and also a division composed of manufacturing companies. It has a Public Relations Section and during the past year has organized a Safety and Accident Prevention Section. Special convention sectional programs will be arranged for the consideration of these special subjects in addition to the regular division programs.

The Oklahoma program is built around the idea of bringing to members of the industry in that state who cannot attend the national conventions as much as possible of what they would secure if attending the larger gatherings. The Oklahoma association has been very successful in the past in working out this idea.

The officers of the Oklahoma association this year are as follows:

President, Thos. R. Weymouth of Tulsa; first vice-president, T. H. Steffens of Sand Springs; second vice-president, S. I. McElhoes, Oklahoma City; treasurer, W. R. Emerson, Oklahoma City, and manager, E. F. McKay, Oklahoma City.

Wisconsin Utilities Association

THE Women's Committee, Employee's Training Section of the Wisconsin Utilities Association, has announced an essay contest from January 1 to March 1, 1930, on the subject of "My Company's Contribution Toward Improvement of Home Life."

The committee gives the following outline of suggestions for guidance of contestants:

A—Promoting neighborliness in the community.

B—Making housework easier.

C—Inspection of appliances in homes and testing them before they are sent out of store.

D—Home Service advice offered free.

E—Food Preservation.

F—Frequent rate reductions.

G—Employee education—employment conditions closely related to home life.

H—First Aid Work—employees, both men and women, trained in resuscitation and first-aid methods, helpful in community.

I—Because my company is privately owned instead of municipally owned.

Any woman employee of a member company of the Wisconsin Utilities Association is eligible to compete in the contest. Essay not to exceed 1,000 nor to be less than 800 words.

New England Gas Association

THE program for the fourth annual meeting of the New England Gas Association is timely, diversified and informative. The meeting will be held at the Hotel Statler, Boston, Mass., February 19 and 20. The program for the first morning session includes a report of the chairman of the publicity conference; President John J. Quinn's address; an address by a nationally known speaker to be announced; election of officers and directors; and presentation of Governor's Cups by past president William Gould.

Three papers will be presented at the afternoon session: "Propane Utilization" by A. M. Beebee of Rochester, N. Y.; "House Heating in Its Most Recent Aspects" by Robert D. Stuart of Fall River, Mass., and "Physical Interconnection of Gas Companies" by a speaker to be selected.

A women's home service meeting also will be held on the afternoon of the first day.

The annual dinner will be held in the evening at which unusual entertainment will be offered to be followed by dancing.

Colonel Oscar H. Fogg, vice-president of The Consolidated Gas Company of New York and past president of the American Gas Association, will open the morning session of the second day with an address on "Economics of Load Building."

Arrangements have been made to have the subject discussed by other outstanding authorities including J. P. Leinroth of Newark, N. J.; Ernest R. Acker, of Poughkeepsie; Avery R. Schiller, of New Hampshire, and A. H. Cuthrell, of Brooklyn.

B. J. Mullaney, President of the American Gas Association, will speak on "Immediate Prospects of the Industry."

Paul J. Naschold will present a paper on "Domestic Appliances and Their Value in the Load." Professor Philip Cabot will address the afternoon session of the second day on "A Volume Price for Increased Business" to be followed by an address on "Practical Humanities in Public Utility Relations" by Earl W. Hodges.

Empire State Gas and Electric Association

THE annual meeting of the Commercial Section of the Empire State Gas & Electric Association will be held at Rochester, N. Y., February 13 and 14. The meeting will consist of four sessions, each of which will be devoted to the work of one of the section's four committees, as follows:

Electric sales, gas sales, farm business and advertising and merchandising policies committees.

The gas sales committee, of which G. I. Vincent is chairman, is planning to present the following reports at its session of the annual meeting: General report of the chairman, coke sales, industrial sales, house heating by gas and water heating.

It has been decided to hold the annual meeting of the Accounting Section of the Empire State Gas & Electric Association at Briarcliff Lodge, N. Y., on April 24 and 25. Business sessions will be held each morning leaving the afternoons for inspection of office equipment, inspection trips and recreation.

A banquet will take place on the evening of April 24 at which there will be one address and some form of entertainment.

The program for the meeting is being arranged by Morris Tracy, chairman of the Accounting Section, and C. H. B. Chapin, secretary of the association.

New Jersey Gas Association

PRESIDENT R. A. KOEHLER announces that the annual convention of the New Jersey Gas Association will be held at Asbury Park on April 23. Meeting headquarters have not been determined definitely but it is likely that either the Hotel Monterey or the Hotel Berkeley Carteret will be selected.

Plans are already in progress to make the 1930 convention an outstanding one. The association this year is organized into sections, similar to the American Gas Association, and the Papers and Program Committee, headed by John L. Conover, is preparing a well-balanced program embracing a presentation from each section, in addition to addresses from leading authorities in the gas industry.

The Entertainment Committee, with B. A. Seiple, of Asbury Park, as chairman, is planning to serve a box luncheon to all the members, during which many novel forms of entertainment will be introduced. More than 400 gas men of New Jersey are expected to attend this one day annual meeting.

Personal and Otherwise

Kenneth Anderson

Kenneth B. Anderson has been appointed industrial gas engineer for the Coast Counties Gas and Electric Company, Santa Cruz, California, according to announcement made by President J. B. Wilson. Mr. Anderson was formerly connected with the Southern California Gas Company and the General Petroleum Company.

The Coast Counties Service area includes Contra Costa County, an industrial district, and with the advent of natural gas in this territory, it was felt that an industrial gas department became a necessity. Mr. Anderson's services will be available for the solving of problems brought up by the changeover from manufactured to natural gas, the application of gas heat to any particular industry and the solving of any fuel problems which may arise in Coast Counties service area.

James F. Pollard, since 1927 division manager of the Pacific Gas and Electric Company's Coast Valleys Division, is leaving California after 10 years of service with utilities of that state to become general manager of the Seattle Lighting Co.

B. Mason, formerly with the Dixie-Gulf Gas Company at the Waskom compressor station, and in Houston, Tex., has joined The Moorlane Company, of Tulsa, as a consultant in engineering problems.

Maj. B. A. Hardey, vice-president and general manager of the Moody-Seagraves properties in the Shreveport, La., district, is back in Shreveport to remain two or three months until his company begins work on the proposed Wyoming gas line.

Miss Ruth Soule, head of the Home Service Division of the Brooklyn Union Gas Company, acted as host to Miss E. K. Stone, Miss Esther Lee, Miss Eleanor Gillespie, Miss Betty Sherwood, Miss Elsa Steinberger, Miss Mary Murphy, Miss Mary Coffey, Mrs. M. V. Jones and Miss A. E. McCullough, of the same company, who attended the women's annual dinner of the Brooklyn Chamber of Commerce, January 7. Mrs. Franklin D. Roosevelt, wife of the Governor of New York, was the principal speaker. Miss Mary E. Dillon, a vice-president of the Chamber of Commerce and president of the Brooklyn Borough Gas Company, acted as toastmaster.

B. J. Mullaney, Printers' Ink announces, has been appointed as one of five judges of a poster design contest being sponsored by the Chicago Association of Commerce. The poster is to advertise "Chicago—World City Week," from February 3 to 8 and a prize of $700 is offered to the resident of that city or one of its suburbs who submits the design judged to be the best.

Danbury Fetes Tony Sunderland

Anthony Sunderland, popular mayor of Danbury, Conn., was guest of honor recently at a congratulatory banquet at the Hotel Green, which was staged by more than 400 friends in celebration of his marriage to Kathryn M. Lane of that city.

Mr. Sunderland, who is a veteran employee of the Cities Service organization, has been merchandise manager of Danbury and Bethel Gas & Electric Light Company since 1923. "Tony," as he is more familiarly known to everyone in Danbury, is one of the most popular public officials the city has ever had, and is at present serving his fifth term as mayor.

The sentiments of the assemblage took a substantial form when Mayor Sunderland was presented with the wedding gift of the gathering. This was a new crisp $1,000 bill enclosed in a handsome bill fold. In addition, he was presented with $100 in gold from the members of the Fire Department, duplicating a gift made several days before by the members of the Police Department; and a gold piece from Ernest Weichert Camp, United States War Veterans, of which he is an honorary member.

Mr. Sunderland joined the Danbury Company in 1902, when it was an independent under the same name, as meter reader, meter tester and general complaint clerk. The same year he was advanced to general office duties and in 1904 was made assistant cashier. Soon after he was promoted to cashier which position he held until 1923 when he was made merchandise manager.

Samuel Insull, Jr., has been elected vice-chairman of the Middle West Utilities Company by the directors. They also elected Oliver E. McCormick vice-president in charge of the treasury, E. A. Davis vice-president in charge of auditing, W. S. Vivian vice-president in charge of public relations, and Dempster MacMurphy vice-president in charge of publicity. L. B. Breedlove was elected an additional assistant to the president.

Charles R. Bellamy has joined Columbia Engineering & Management Corporation as gas engineer with headquarters at 61 Broadway, New York City.

Paul F. McBride recently was appointed general manager of Southern Cities Distributing Company, a subsidiary of Arkansas Natural Gas Corporation. Mr. McBride is a veteran member of the Cities Service organization.

W. C. Beckjord Joins Boston Consolidated

W. C. Beckjord

AFTER twenty-five years' service, Walter C. Beckjord has resigned as vice-president and engineer of The American Light & Traction Company, Chicago, and accepted the office of vice-president and general manager of the Boston Consolidated Gas Company, with headquarters in the Massachusetts city.

Mr. Beckjord is one of the most prominent and able executives of the gas industry. His administration as chairman of the Technical Section of the American Gas Association was a conspicuous success, and his work for the Economic and Engineering Survey of the Gas Industry marks a genuine and valuable contribution to the advancement of the gas business.

Mr. Beckjord was born at St. Paul, Minn., June 18, 1888, and received his early education in the public schools of that city. He graduated in electrical engineering, in 1909, at the University of Minnesota, and successfully passed through the cadet engineering course with the St. Paul Gas Light Company. He became the construction and electrical engineer of that company and in 1916 joined the Madison Gas & Electric Company, at Madison, as general superintendent, and soon was appointed assistant engineer of the American Light & Traction Company. In 1918 he ran a coal mine in Kentucky, and shortly afterward was made engineer of the American Company.

A. G. A. Industrial Gas Salesmanship Course Now is Available

AFTER months of preparation, the Managing Committee of the Industrial Gas Section, American Gas Association, now offers to the industry "A Course in Industrial Gas Salesmanship." It presents a unified, practical procedure, designed to build sales. It is available to every gas executive and industrial gas salesman who is interested in adding selling skill to his engineering knowledge.

This course is in keeping with the industry's policy to wage an endless campaign for the sale of gas, both natural and manufactured, and to everlastingly repeat the fact that "If It's Done With Heat You Can Do It Better With Gas."

Determined to assist in the nation-wide movement looking toward greater sales of gas, the Managing Committee of the Industrial Gas Section hit upon the idea of introducing this new A. G. A. course.

The Business Training Corporation was called in and a thorough field survey in all sections of the country, covering a period of several months, was made. This course was built upon the source material supplied by that survey. The Business Training Corporation is the same organization which prepared the A. G. A. Course in Domestic Gas Salesmanship, which met with outstanding success.

The Managing Committee appointed a special committee to take charge of this new course in industrial gas salesmanship. The committee in charge is made up as follows:

H. O. Loebell, chairman; George Bowersox, D. W. Chapman, L. B. Crossman, Hugh Cuthrell, A. H. Gumz, Hall Henry, C. C. Krausse, J. P. Leinroth, F. C. Mackey, R. L. Manier, N. T. Sellman, H. A. Sutton, W. D. Thompson, L. E. Wagner, and H. E. G. Watson.

In announcing the course, the committee pointed out the benefits to be derived by individuals enrolling. It was emphasized that each student will be supplied with the best ideas from coast to coast; that industrial gas executives the country over will furnish them with information on their most successful methods and practices; that representative gas salesmen will tell about their most effective ways of reaching and interesting prospects, winning their confidence, surveying their needs, making recommendations and closing sales; that the student will get a complete insight into the work and methods of the industry's best selling brains, and, finally he will be placed in a position to review, analyze and compare sales information and data placed at his disposal by utility and manufacturing companies.

This was brought about by the field survey. A corps of trained investigators, and members of the research staff of the Business Training Corporation gathered these facts, information and data that will help sell industrial gas more intelligently and effectively.

This mass of information has been sifted, analyzed, classified, and organized into usable form, so that our united fund of sales and technical knowledge may be made available to every industrial gas man.

Upon this bedrock foundation of scientific information has been built this new A. G. A. course.

Aims of the course are as follows:

1—To give salesmen a more detailed grasp of the uses of gas in industry, and to show him how to make complete analysis of the sales possibilities in his territory.

2—To develop for salesmen a systematic procedure for uncovering each prospect's needs completely, instead of partially.

3—To provide salesmen with time-saving methods and equipment for conducting inspections, fact-finding interviews and tests in order that a larger proportion of time may be devoted to *selling* efforts.

4—To lay out for salesmen a planned, systematic and dynamic *sales* procedure applicable to all situations and thereby reduce the number of profitless calls.

5—To show salesmen how to educate customers and prospects to a consideration of fuels in terms of their ultimate effect on production instead of in terms of immediate cost.

6—To provide salesmen with facts and methods most efficient in overcoming competitive claims for coal, oil, electricity and "bottled gas" when raised directly by prospects.

This course in Industrial Gas Salesmanship covers a period of about six months and is conducted through three distinct media, as follows:

Seven Text-Units which are mailed to each person enrolled at four week intervals.

(Continued on page 70)

Enroll Your Organization Now!

Every utility company and every equipment company should enroll its entire industrial sales organization at once, and get this business building program into operative use without delay.

Every member of your organization, who has to do with industrial gas will profit directly from the Course and should be enrolled—executive officers, sales managers, supervisors, salesmen, and other contact representatives. Industrial engineers and other members of your organization who prepare, or pass on, proposals will also find the Course helpful in their work and should be included.

THE COST IS LOW

The fee for the Course has been set at $50.00 for each person enrolled. This low figure is possible only because of co-operative support of the industry, and because we are confident of complete participation by every member company.

THE AMERICAN GAS ASSOCIATION
420 Lexington Avenue
New York City

A Training Course Based o E

The Course is divided sev
Each Unit deals with imp
selling of industrial g and
liberally supplemente ith h
panel pages, check-shee

UNIT I—
Establishing Confidence and Control

The first unit gives you a bird's-eye view of the planned sales methods and procedure employed by successful industrial gas salesmen. While it points out the value of facts as sales arguments it shows what is even more important, the kind of facts required, how to obtain them and how to use them with a gas prospect. The unit tells how performance data may be secured, organized and presented so as to have the greatest sales-producing results. In detail it shows how the initial contact with industrial executives should be made in order to break down resistance, win the confidence and open the door wide to your sales story. It discusses practical methods of getting to the right man in the industrial plant, and short-cut methods for making quick-sales to "easy" prospects.

EASY TO READ—

EASY TO GRASP—

EASY TO APPLY

UNIT II—
Ascertaining the Prospect's Requirements

The second unit deals with the methods by which you can secure the cooperation of industrial prospects in obtaining the complete facts about his heating needs most effectively. It guides you in selecting out of these facts the most appealing arguments and outstanding needs for their tentative consideration. It gives you a definite working program for checking their reaction to your tentative proposals, so that you may capitalize the points which they receive favorably when you present the formal proposal. Also, it provides practical methods for recording and analyzing the performance data so as to select a proper solution for the heating problems under consideration.

UNIT III—
Presenting Your Recommendations

This unit draws together in orderly form the procedures followed in the most effective preparation and presentation of proposals to industrial gas prospects. It starts by establishing a method of viewing the proposition from your prospect's standpoint. With this basis, it goes on to the actual working out of the proposal with each factor framed so as to have a sales effect. The unit then details the most desirable ways of placing the story before the proper executives—orally and in writing —how to keep control of the interview or meeting, and how to turn each point of discussion toward the sales goal. It indicates ways for closing the sale, when possible, or of making the interview a definite commitment toward the final favorable decision.

Experience—Not Theories

seven sections, or units. important phase in the and the text material is th helpful illustrations, sheets and other aids.

UNIT IV—
Explaining Technical Processes

This unit shows how to make the explanation of technical facts contribute to the selling objective. It points out the ways of building from your prospect's present understanding of technical terms and subjects, toward a more complete knowledge of the essential facts which he should have—all with the sales "angle." It suggests specific equipment—pictures, diagrams, etc.—for making explanations of difficult points, and shows the best means for making demonstrations of apparatus at the sales room or plant. The explanation of test installations is covered in detail; and chapters on handling special technical explanations—metallurgical processes, for instance—are included here.

UNIT V—
Overcoming Difficulties

Here is a wealth of aid in the toughest part of your job—convincing the "hard-boiled" prospect. Methods for handling indecisive and skeptical executives are given; procedure in meeting such difficulties as the refusal to see you, the handicap of selling more than one executive, and personal interests or jealousies of the individual plant executive—these are all discussed. The ways by which you can handle objections and turn them to account and the problem of meeting competitive claims from other fuels are treated fully with facts and reasons. Special attention to means of closing difficult sales is given here.

UNIT VI—
Following Through

In this unit are shown the systematic methods followed by leading industrial gas salesmen in building up permanent, regular future business—of making each sale pave the way to others. Check-up calls on installations and other methods as a means of creating further good will among customers; for leading to additional installations; for securing replacement business, are discussed. The step-by-step procedure for this is shown. Ways of reviving lost sales are also covered; and a special chapter is devoted to ways of keeping yourself posted on industrial gas developments of value in generating more sales.

UNIT VII—
Organizing Field Work

The final unit gives you a sound plan for developing the sales possibilities of your territory—how to make it yield its fullest measure of prospects. Methods of analyzing your field for immediate business—and from the most desirable load-building standpoint—are discussed. Many plans for developing sources of live leads are explained. In addition, there are chapters on the organization of your time and efforts so as to make them more productive—working methods and schedules that spell more dollars in your pocket. The apportionment of your time among various kinds of calls is also covered.

A. G. A. Industrial Gas Salesmanship Course

(Continued from page 67)

They not only provide the basic material for individual study and reference, but also furnish the background for stimulating and worthwhile group conferences.

Case Problems, which accompany each unit, give a vivid account of a typical interview between an industrial gas salesman and a prospect. They offer an opportunity to analyze the methods of a fellow salesman much as if you were watching a slow motion picture of him at work. You will be asked to comment on these case problems. Your solutions to the problems they present will be checked and returned with a complete analysis of the case.

Conferences. Whenever three or more from one company are enrolled, group conferences can be arranged. Those meetings, which may be held every week or every two weeks, provide a chance to discuss and apply the ideas brought out in the Units. They will prove a popular and helpful feature of the Course. The *leaders* of the group will receive a *series of special manuals* for conducting the group conferences.

Certificates will be awarded to each person who completes the course satisfactorily, as shown by his solutions to the case problems.

The Course Will Help All of Us

Because:

—It puts at our command a sound procedure, from start to finish, for developing, selling, and handling industrial gas accounts.

—It shows us how to handle sales interviews more skillfully and close sales more surely.

—It provides us practical methods of presenting facts, data, and information in usable, sales-slanted form.

—It will stimulate our own thinking about the essential problems of our business.

—It will place our activities on a still higher and more successful plane.

—It will be a powerful factor in building greater industrial gas sales.

In Short

—The Course gives every industrial gas man just what he needs and what he wants.

New England Serves Six Million People

There are 104 companies selling manufactured gas for lighting and fuel in New England. In 1928 these companies sold 43,012,100,000 cu.ft. of gas to a total of 1,441,620 customers, representing a population of 6,404,800. To serve these customers, gas is distributed through 11,555 miles of mains. The total number of meters used was 1,448,560. Gross revenue from the sale of gas in 1928 was $55,240,000.

Practically all gas is sold in the state where it is manufactured, very little, if any, crossing any state lines in New England. Outside of one gas system in Connecticut, all gas is distributed within a few miles of the place of manufacture.

In the manufacture of gas in New England, in 1928, 46,200 tons of anthracite, 1,407,000 tons of bituminous, 590,600 tons of coke, and over 67,000,000 gallons of oil were consumed.

In the whole of the United States there are 655 manufacturing gas companies, of which 52 are municipal establishments, and the balance privately owned and operated.

Home Study Course on Manufactured Gas

THE Committee on Education of Gas Company Employees desires again to direct the attention of the young employee especially to the splendid opportunity that is his for attaining a greater knowledge concerning the technicalities involved from the operating viewpoint of our industry by subscribing for the Home Study Course on Manufactured Gas offered by Columbia University.

The course is comprehensive and complete and is heartily endorsed by both the committee and the Association. Many fine testimonials regarding its worth have been received from students who have already completed the course.

"Be Prepared" is not only a good slogan for a Boy Scout, but for everyone else as well who hopes to advance and succeed. You must not only have your eyes on the next rung of the ladder—you have to know what to do when you get there. This course supplies such information and should appeal to the fellow of ambition.

For further information and details, consult either the Educational Director of your Company or write the American Gas Association, 420 Lexington Avenue, New York.

Philfuels New Headquarters

ALL operations of the Philfuels Company are now being conducted from the new offices in the General Motors Building, Detroit, Mich. This move is made in order to centralize the various activities of the Philfuels Company at the Detroit office.

The executive offices, engineering and construction department, the material purchasing, the drafting and the stenographic work, which were formerly located at Bartlesville, Okla., will also be concentrated at the Detroit office.

Officers of the company affected by this move and who will be transferred from Bartlesville to Detroit are G. G. Oberfell, executive vice-president, R. W. Thomas, vice-president and general manager and N. W. Strale, chief engineer.

GAS WINS BATTLE WITH BLIZZARD

While railroad schedules were generally hopelessly muddled by the worst blizzard of a decade that raged over the Middle West, December 18 and 19, trains entered and left the Chicago Union Passenger station without difficulty.

The maze of switches, cross-overs, etc., that form the intricate track approaches to the station were heated with gas burners placed beneath the steel. As the storm deposited the first of the 14.9-inch blanket of snow, gas was turned on at a central point and the burners lighted by a torch. Veteran railroaders, who had in time gone by fought snow fall with brooms, picks, shovels, tallow pots and steam, were amazed that only two regular track men were needed to keep the switches free from snow and ice. Hundreds—even thousands—of extra men were formerly required to fight the snow, they pointed out.

Preliminary to their installation, the new gas burners were tested in the laboratories of The Peoples Gas Light and Coke Company, at Chicago. It was found that with gas supplied at less than normal pressure, a gale blowing at 45 miles per hour would not extinguish the flames.

Improves Time-O-Stat

F. B. HERTY, of the utilization division, The Brooklyn Union Gas Company, with the assistance of W. U. Sherratt, of the same division, has improved the existing type of Time-O-Stat control for gas-fired house heating boilers. The present type of control on most house-heating-by-gas installations maintains a temperature of 70° during the day and 60° during the night.

A customer, however, requires in his home a temperature of 70° during a few hours in the early morning and a few hours during the evening, but requires no heat during his absence at business during the day. The desired condition has been brought about by a specially designed cam which Mr. Herty has added to the regular Time-O-Stat mechanism.

Publicity and Advertising Section

JAMES M. BENNETT, Chairman ALLYN B. TUNIS, Secretary DONALD M. MACKIE, Vice-Chairman

Advertising Typography and Layout*

By BERT VAUGHN FLANNERY

IT is probably quite obvious to you that no one can give a very comprehensive talk on advertising design or the problems of layout and typography in twenty minutes. It is also quite obvious that twenty minutes is quite as long as you can hope for anybody to listen to a discussion of this subject.

I can only hope to give you a few notes.

It is my confirmed opinion that there is nothing that business men, and advertising men as well, will run away from faster than a little hard academic study. If I can give you a series of notes which you, on your own, can pursue further, I shall have done all that is really possible and perhaps desirable. What you propose to do with these notes is more or less up to you.

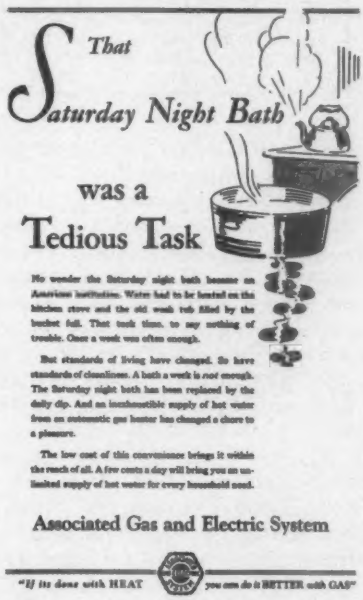
I think that we may assume the battle for good advertising design is over and won.

There is a certain curious interest still existing on the part of laymen at least and probably some advertising people, as to which comes first—the copy or the design. The answer, of course, depends upon whom you ask the question; a writer or an art director. The answer to the question, however, is neither. An advertising campaign starts with an idea, and if it is, *per se*, an advertising idea, it is the work of the writer and the art director to bring to the interpretation of this idea their various talents and abilities. The writer uses his tools, which are words and the art director, his, which are design, typography, pictures, *etc.*

Now the strategy of advertising is everyone's concern who is concerned with the advertising at all, but the writer and the art director should be the master of their particular tactics and they should concern themselves with making that particular set of tactics as effective as possible.

*This paper was read before the Publicity and Advertising Section, A. G. A. Convention, Atlantic City, last Fall.

In the layout of advertising, I think it would be well to go back to the old, simple rule that is back of all good design and hence all good advertising design and that is, "purpose must govern form."


That
Saturday Night Bath
was a
Tedious Task
No wonder the Saturday night bath became an American institution. Water had to be heated on the kitchen stove and the old wash tub filled by the bucket full. That took time, to say nothing of trouble. Once a week was often enough.
But standards of living have changed. So have standards of cleanliness. A bath a week is not enough. The Saturday night bath has been replaced by the daily dip. And an inexhaustible supply of hot water from an automatic gas heater has changed a chore to a pleasure.
The low cost of this convenience brings it within the reach of all. A few cents a day will bring you an unlimited supply of hot water for every household need.
Associated Gas and Electric System
"If its done with HEAT you can do it BETTER with GAS"

One of the most futile efforts is to get the well-known weekly magazine and thumb through it, as you see a great many men doing, saying "This is a good layout" and "That is a bad one," "I don't like this picture" or "I don't like that arrangement." No layout can be judged without full knowledge of its purpose, and likewise no good layout can be planned without a complete understanding of the purpose of the advertising.

I think entirely too much time is wasted discussing *how* layouts are made and not enough concern given to *why* they are made. I think necessity is still the best designer.

Layouts generally can be divided into two groups—what we might call the narrative type, and the display type. The character of the advertising is dictated by the thing that you are trying to accomplish. We do the advertising for a fine glass company. It is obvious that you could write your head off about the charming necessity of nice table glass and never do justice to this glassware. One photograph does do justice to it, supported by interesting copy, which means copy of interest to women. The job is completed.

On the other hand, in preparing advertising on a correspondence school, as we do, you could not hope—with all the pictures in the world—to tell the story this advertising should convey. In such a case, pictures and layout can only hope to support copy.

Now there are many combinations of these two extreme attitudes, but I think that this one simple rule might aid to begin with.

You must also keep in mind the finished job.

Rotogravure is essentially a picture medium. For example, in rotogravure it would be well to consider the problem as a picture problem, and, unlike the newspaper where you start with white space and put on black images, rotogravure is just the opposite. Being essentially a picture medium, it should be used when the visual problem is paramount.

In designing layouts for newspapers we have certain things we have to consider; first of all, it is black and white. We have certain printing problems that have to be met; peculiar to the media. The typography of the newspaper must be, of necessity, clean and simple, using very safe, legible type.

Magazines, of course, offer a great range of design possibilities. Better paper and better printing, color, engraving, etc., add many strings to the designer's bow.

Let us say a word about advertising pictures. Like the argument as to whether the copy or the design comes first; there has always been a great deal of discussion as to what is "Art" in advertising.

Now it is my very personal opinion that there is no such thing as advertising "Art."

It seems to me that free aesthetics is one thing and pictures bought for commerce is another. The minute you buy a picture for a commercial purpose, you establish a set of standards that must of necessity be commercial. The standards by which you judge a commercial picture and a picture that proposes to be art are two separate and distinct sets of standards. There are times when the pictures you purchase will be excellent pictures from whatever point you wish to judge them; the aesthetic merit of such a picture is by way of being an interesting by-product.

THE ARMCHAIR
FIREMAN
PICTURE yourself in his place. Whether outdoor temperatures go below zero or rise to the thawing point, the GAS-OPERATED HEATING SYSTEM holds room temperatures level, with automatic precision. Gone is ever-present worry and drudgery of fire tending. Your only share in the operation is the weekly winding of a thermostat-clock. Won't you allow us to estimate the cost for your home—confidentially, it's really well within your means.
NORTHERN INDIANA
PUBLIC SERVICE COMPANY

If Steinway & Son, for example, choose to use in their advertising pictures that have been called works of art, it is all very well. The fact remains, however, that their advertising agent does this because it is good business to do so and not because it may be art.

Advertising illustrations are too seldom purchased without thought to whether they are masculine pictures or feminine pictures. The minute you begin to do a little ballyhoo for the ladies there is a natural resentment you must face, particularly if you are addressing a mannish crowd (I shall risk the resentment, even though the crowd I am facing today has but a few women in it.) The fact remains that the women today have most of the money, are rapidly getting the rest of it, and are spending 85 per cent of it about as they please. About all I can figure out that the men do is foot the bill.

OUTDOOR AND DIRECT MAIL PROGRAM APPROVED

The Managing Committee of the Publicity and Advertising Section of the American Gas Association has approved tentative plans for the preparation of a series of outdoor 24-sheet posters and a direct mail campaign, subject to final approval by the Commercial Section of the Association.

Definite announcement and details of these two campaigns, it is expected, will be made in The MONTHLY for March.

This has a very significant bearing on the problem at hand. Most advertising is prepared by men and, frankly, very few of them are professionally interested in women. They figure that everything that pleases them will please the women. They are very sentimental about the home; you can always "get" them on the culinary subjects, but here again, they are interested really in themselves and not the women's angle. They get a certain beaming pride out of the rosy-faced picture of a youngster. After all, they are only reflecting their own feelings. The real test of their ability comes when they face a feminine problem—uncolored by masculine interest.

There is a decided difference between the pictures that appeal to women and men. Men are for the most part interested in realism and women in the decorative side of life. We buy thousands and thousands of dollars' worth of pictures a year in the organization with which I am associated, that I personally do not care for in the least; but they are, I assure you, bought for very good commercial reasons and are good advertising pictures.

Men are not as keen students of women's preferences and women's interests as they should be, and yet the vast majority of advertising is intimately concerned with women. We will grant you, for example, they do not buy more motor cars than men and yet there isn't a motor car manufacturer in the country today that will not admit that, out of 80 per cent of the automobiles he sells, women have a most important part in the decisions. Most of the insurance in the world is held for women. Is it irony to say that when a woman dies this insurance usually goes to another woman?

If I were a man in the advertising business and wanted to know more about women's interests I would become one of the most rabid readers of women's magazines. I would read the editorial pages and not fool myself that a perusal of the woman's advertising was enough.

THERE IS NO ACCIDENT - -
- ABOUT THIS BOY'S HEALTH.
His mother works every day at the job of motherhood.
Meals that are well-cooked and well-balanced, food supply safely kept in a modern refrigerator, a home that is well ventilated and comfortably warm on chilly days, baths provided by an automatic heater.
COOKING - WATER HEATING - REFRIGERATION - HOUSE HEATING
ALL WITH NATURAL GAS
Special credit for your old water heater under our easy plan.
SOUTHERN COUNTIES GAS COMPANY

Certainly the pictures in our advertising ought to be purchased deliberately to interest women, if actual interest in such advertising is to be secured.

You will have to throw aside your personal prejudices about pictures and

get very commercial in your discrimination and abstract in your judgments.

Photography is unexcelled for the descriptive picture.

I was presumptious enough to say that I did not think business men liked to work very hard or to study on something that was outside of the necessary daily curriculum. As evidence of this fact I have here a few notes from a book on typography by the late Benjamin Sherbow. This is a check-up by which he offers a simple formula for the analysis and effectiveness of typography:

Here is a check-up plan on the following pages which will enable you to decide whether any piece of advertising typography under consideration (either in layout or finished proof form) has the qualities that make it able to deliver its advertising message effectively.

The principles of advertising typography are the same whether applied to advertisements in newspapers, magazines, trade papers, or to booklets, catalogs, house organs, broadsides, or to a blotter. For this reason the plan may be used in checking up effective type used in any piece of advertising print whatever.

Clip specimen advertisements from all sorts of publications. Collect specimens of booklets, catalogs, and other examples of advertising print. Then take one speciman after another and carefully analyze its typographical qualities by the use of this check-up. When you find examples in which the type does not deliver the message effectively (for reasons which the plan has shown you) make a layout of your own which will embody the better way of handling the same piece of copy.

I know of no surer method of getting a quick grasp on the principles of effective type use.

1. Good Looks

Advertising typography must invite the eye by its good looks.

(a) The printed page should be made attractive by careful choice of type and by its pleasing arrangement, but we should beware of fussing it up.

(b) Type dress should conform to the character of the message.

(c) Decoration wisely used where it belongs adds grace to the printed page and this helps to deliver the message. Decoration that does not help to catch the eye or deliver the message is not only superfluous, but is harmful. It distracts the eye and uses up valuable space.

(d) Type needs a relief of white to attract the eye and make it easy to read.

2. Liveliness

Advertising typography must stimulate interest by its liveliness.

(a) The eye is attracted by things that look alive. It turns away from monotony. The printed page must look as if it had an interesting story to tell. Avoid the physical appearance of dullness.

(b) Break up the text into short paragraphs to make the page sparkle.

(c) Use lively display heads and subheads. Display heads are intended to catch the eye of the reader and convince him that our advertisement has a live message for him. In the use of display type bear in mind the following five things:

1. It must stand out.
2. It must be easy to read.
3. It must be good to look at.
4. It must be arranged so that its sense is clear at first glance.
5. We must not overdo. All display is no display. Avoid also the over-use of all caps, italic and boldface in the body of text.

3. Orderly Arrangement

Advertising typography must sustain interest by orderly arrangement.

(a) There must be clearness and deftness in the arrangement of our material on the printed page to aid the quick and easy understanding of our message. Avoid involved arrangements that cause confusion. Make it easy for the reader to follow you step by step.

(b) Cataloging or listing is well arranged in proportion to the quickness and ease with which it gives up its store of information. By clear and orderly arrangement we must enable the reader to get at a glance the information he wants.

4. Easy to read

Advertising typography must grip attention by being supremely easy to read.

(a) The face of type.

1. It must be of a design with which we are familiar through long practice in reading it. This bars "fancy" types of eccentric design.
2. Every stroke of every letter must be clear and instantly recognizable.
3. It must be good to look at.
4. Avoid setting pages or even paragraphs in all caps, italic or boldface.
5. Avoid freak lettering or any kind of lettering that it not at least as easy to read as a good face of type.
6. Avoid dark backgrounds for type.

(b) The size of type.

1. Small type is not inviting to the eye and produces a strain that discourages reading.
2. Type may also be too large for the space and produce as much strain as type too small.

(c) The length of line.

Type size governs the length of line. To insure easy and comfortable reading, it is a universal rule that the smaller the type the shorter the line has to be.

(d) Space between line (leading).

Type is made easy to read by putting enough space between lines to give the eye a clear path.

As evidence of the fact that I do not think we study as much as we might, you have asked that we discuss typography—yet any one of you can get Benjamin Sherbow's two little books (and I am not interested in the promotion of Mr. Sherbow's books) for the price of a theatre ticket and can read these two books in an hour. If those books were put into the hands of men who are preparing advertising, it would be improved tomorrow.

I do not see why I should really even attempt to make a speech on the subject of advertising typography as long as those books are in existence.

I am still four minutes "under the wire" and I want to take the opportunity of talking about an entirely new and more recent departure in the province of the advertising art director. We have talked here up to now about advertising, its layouts, its typography, its pictures, etc.

Today, every well-equipped advertising agency must, if it hasn't already made provision to do so, concern itself about the appearance of packages and the appearance of the product itself. Good taste in this country is a very

ADVERTISING BRINGS LOWER PRICES

The lowest priced commodities of any kind, whether shoes, automobiles or gas and electric service, are those which are most advertised, says W. H. Hodge, of the Byllesby Company.

Utility advertising has brought important facts concerning the industry before the American people, and has helped provide them with an understanding of utility problems and operating conditions. And it has helped, as well, in creating a tremendous demand for gas and electricity with the result that our utilities are able to provide better service at lower rates.

vital thing to a great many women, but of too little interest to manufacturers and of not too much interest to advertising people. An idea apparently is not a good idea in America until it becomes economic. Now, good taste has become good business. Appearance is a sales factor; a manufacturer who has something to sell that has form, had better concern himself about its appearance as well as other points of merit that his product may have.

We discovered, not many weeks ago, an interesting old letter in a trunk in an old house in Philadelphia that was being torn down. It was a letter from Mrs. Lelia Carter, of Virginia, to Donald Campbell, of Virginia, ordering a chariot, or what we would call today, a carriage. The specifications are the interesting aspect of this letter; she wanted a commodious trunk put on the back, she wanted all the trimmings in gilt, and she went on to describe at great length all the particular details of outward appearance she wished. The most amusing thing about the letter was that we do not know if the carriage was made of oak, we do not know whether it had iron tires or whether it was drawn by four horses or two, but we do know what Mrs. Carter's preferences were in size, color, style, and decorations.

It has been estimated by those people concerned with fashion that five years ago, when a new fashion note made its appearance in Paris, it was exactly twenty-seven months before it appeared in the mail order catalogues in this country. Today it takes precisely nine months to do that and it takes about nine months to print such catalogues. The "backwoods" have gone. The lady in the small town is quite likely to be as well informed as the lady on the avenue.

Let us take, for example, the manufacture of a percolator. Which is the woman best equipped to answer: "Is this mechanically the most perfect?" or "Is this a good-looking percolator?" We have got to concern ourselves about this business of appearance. It is a matter of carrying the problem of physical appearance further than just the advertising page.

Such a discussion as this would be incomplete without reference to what has been called "the modern movement" in design, of which you have heard some rumblings and which should be of interest to you. We talk a great deal in this country now about what is called "the modern movement" in design. The dean of this movement, Professor Bruno Paul, of Germany, has long ago passed his fiftieth birthday. The alarming fact is that the modern movement could be over fifty years old and yet be a new one here. With thousands of tourists going about in the past five years, the consumers have brought the news back with them. As a result, a lot of manufacturers have leaped into hastily conceived designs in the modernistic manner and have gotten out a lot of stuff which is pretty bad. They haven't gone to the trouble to do what has been done in Germany and France. They have assumed to cover in a few months the work of years of study.

It is part of the advertising art director's job today to contribute to the whole general business of styling and designing goods and it is going to play an important role in advertising work in the future. How far-reaching this work will be can scarcely be imagined.

Like the college graduate who went to Mr. Harriman, one time president of the Illinois Central Railroad, and asked what he could do to be a success. Harriman suggested that he invest five thousand dollars. The young man said he had no money. Harriman said to get it and return to him and he would advise him what to do. In about two years he came back to Mr. Harriman, saying: "I've had hard work to get it, but I've the five thousand dollars." Mr. Harriman replied, "Well, if you have done that in your first two years, you do not need my advice."

Perhaps, from some of these notes, you will be able to do what the young man did with Mr. Harriman's advice, you will study and improve your understanding of the purposes of advertising design. If you do, you will need no advice of mine.

NOW AVAILABLE
REVISED EDITION
PUBLIC SERVICE

The revised edition of the booklet, "Public Service" edited by Irving Jay Rogers and published by the American Educational Press, New York City, is just off the press and ready for distribution. This revised edition is reduced in size, but still contains meat for interesting reading on this important subject from the pens of such national thinkers and leaders as Roger W. Babson, Professor Irving Fisher, Matthew S. Sloan, George B. Cortelyou, with an introduction by William Butterworth, president of the United States Chamber of Commerce. Prices of the new edition are as follows: Lots of 5,000, 7½ cents each; lots of 10,000, 6¾ cents; 25,000, 6 cents, and 50,000, 4¾ cents.

Eliminate Three Companies

UNIFICATION of its corporate structure through the elimination of three intermediate holding companies and the acquisition of the Allied Power and Light Corporation were recently announced by B. C. Cobb, chairman, and T. W. Martin, president of the Commonwealth and Southern Corporation. The purchase of Allied Power is a further step in the formation of an organization offering every service in connection with the ownership, management, engineering and construction of public utility properties.

Brockton Promotions

STEADY growth of the Brockton Gas Light Co., Brockton, Mass., has necessitated several important changes in the organization and recently furnished opportunity for a number of promotions in several departments.

The position of general superintendent is now filled by Wolstan E. Browne, formerly assistant to General Manager George H. Priest. Another new position is that of assistant to the general superintendent, filled by Fred J. Sullivan, formerly assistant to the distribution engineer. J. P. Kavanaugh has been appointed production superintendent. A. D. Daniels is now assistant production superintendent.

Master Plumbers Hear Keith Clevenger

Keith Clevenger, Director of Publicity and Advertising of the American Gas Association, was one of the speakers at the annual convention of the Wisconsin Master Plumbers Association, which took place at the Schroeder Hotel, Milwaukee, January 16.

Mr. Clevenger assured his audience that the gas industry stood ready at all times to cooperate with all allied trades, emphasizing the important part played by plumbers in bringing about greater efficiency in the use of gas by the customer.

Natural Gas Department

H. C. MORRIS, Chairman — E. J. STEPHANY, Secretary — H. C. COOPER, Vice-Chairman

Natural Gas Convention Meets at New Orleans May 5-8

AT a conference held by H. C. Morris, Chairman of the Natural Gas Department of the American Gas Association, E. J. Stephany, Secretary of the Department, and W. C. Grant, Director of Publicity, Lone Star Gas Company, Dallas, Texas, which took place in that city last month, preliminary arrangements for the convention of the Natural Gas Industry, to be held in New Orleans, Louisiana, in May were outlined. The meeting will take place May 5-8, and headquarters will be at the Roosevelt Hotel.

The first step in this direction was taken and the following program committee was named:

N. C. McGowen, Louisiana Gas & Fuel Co., Shreveport, La.

H. L. Montgomery, Cities Service Gas Co., Bartlesville, Okla.

T. J. Strickler, Kansas City Gas Company, Kansas City, Mo.

L. Fitzpatrick, Utah Gas & Coke Company, Salt Lake City, Utah.

George Wehrle, Public Service Company of Colorado, Denver, Colo.

W. A. Dunkley, Memphis Power & Light Company, Memphis, Tenn.

A. E. Merchant, New Orleans Public Service, Inc., New Orleans, La.

A. C. Howard, Dixie Gas & Fuel Company, Houston, Texas.

F. L. Chase, Lone Star Gas Company, Dallas, Texas.

While this convention will be known as "The Western Natural Gas Convention" it will be open to all natural gas men in the country. The program will feature outstanding problems and subjects of interest to the Natural Gas Industry, but there will be no exhibit of appliances.

Mr. Stephany has transferred the headquarters of the Natural Gas Department from Pittsburgh to the Allen Building, Dallas, Texas, and from now on he will devote most of his attention to details of the forthcoming meeting, which Mr. Morris expects to make one of the most successful in the history of the industry.

Tentative Program is Announced for Regional Sales Conference

The following tentative program has been announced for the First Natural Gas Regional Sales Conference, covering Pennsylvania, Ohio, West Virginia, Maryland, New York and Kentucky, which will take place at the Hotel Schenley, Pittsburgh, Pa., February 10 and 11, under the auspices of the American Gas Association:

Monday Morning, February 10, 1930
10:00 A.M.

9:00—10:00 A.M. Registration
Opening Remarks by:
Chairman Reid Cameron, Manufacturers Light and Heat Co., Pittsburgh, Pa.
"Cooperation by the Operating, Utilization and Sales Departments in Promoting Sales"
E. A. Munyan, Union Gas and Electric Co., Cincinnati, Ohio
"Every Employee a Salesman—Selling the Employee the Idea of Gas Service"
F. C. Mackey, Public Service Co. of Northern Illinois, Chicago, Ill.
General Discussion
"Better Home Contacts Through Meter Readers, Salesmen and Home Service Representatives"
E. C. Weston, Ohio Fuel Gas Co., Columbus, Ohio
General Discussion
"Contacts by Women"
R. E. Polk, Equitable Gas Co., Pittsburgh, Pa.
General Discussion
Conference Luncheon
Address—B. J. Mullaney, President of the American Gas Association.

Afternoon—2:15 P.M.

"Training Industrial Salesmen"
H. O. Loebell, Combustion Utilities Corp., New York, N. Y.
General Discussion
"Industrial Sales in the Heavy Metallurgical Field"
Karl Emmerling, East Ohio Gas Co., Cleveland, Ohio
General Discussion
"Industrial Sales in the Light Metallurgical Field"
E. W. Esslinger, Union Gas & Electric Co., Cincinnati, Ohio
General Discussion

Tuesday Morning—9:00 A.M.

"Selling Conversion Burners for House Heating"
Geo. L. Scofield, Dominion Natural Gas Co., Buffalo, N. Y.
General Discussion
"Selling Straight Gas Designed Equipment"
V. L. Black, Equitable Gas Co., Pittsburgh, Pa.
General Discussion
Conference Luncheon

Afternoon—2:15 P.M.

Symposium on Dealer Cooperation
"Dealer Cooperation in Manufactured Gas Territory"
A. J. Peters, The Consolidated Gas Company of New York.
General Discussion on Obtaining Dealer Cooperation in Natural Gas Territory

A special inspection trip to the important industrial customers in the Pittsburgh territory has been arranged for the industrial men on the last afternoon of the conference.

Bartlesville Gas Company Now in New Home

BARTLESVILLE Gas & Electric Company is now in its new home at 328 Johnstone Avenue.

The company held open house to celebrate the opening, and throngs of Bartlesville people visited the office from early in the morning until late at night.

Of the several thousand women of the city and environs registered, the first 1,400 received gas toasters as a gift from the company, while a drawing was held for a Detroit-Jewel gas range and an Estate Triple Effect heater.

One of the features of the opening was the beautifully decorated show window which had been trimmed by Ralph Taylor of Bartlesville, and which, according to the Bartlesville Examiner, was one of the most artistic displays ever put on in the city.

Dallas Office Opens

Offices of the Natural Gas Department of the American Gas Association, recently transferred from Pittsburgh, have been re-opened by E. J. Stephany, secretary, at Dallas, Texas. The department's address now is 724 Allen Building, Dallas.

Nebraska Burns Texas and Oklahoma Gas

Oklahoma or Texas gas now may be burned in Nebraska. Extension of the main gas pipeline system of Cities Service Gas Company to Falls City, Neb., was completed late in December. The line serves also, Horton, Hiawatha, Sabetha and other Kansas cities, where the Gas Service company has installed distribution systems.

The extension from Atchison, Kan., is approximately 53 miles long, and is constructed of 10- 8- and 6-inch pipe. Falls City is the terminus of the line and is the point farthest north served from the Empire gas pipelines.

Operation of the line is under the supervision of C. A. Gibson, district superintendent for the northern territory with headquarters at Ottawa, Kan., and in the immediate charge of Roy Gearhart, superintendent of Pipe-line division No. 12.

This map shows the extension of Cities Service Gas Company's main pipeline system from Atchison, Kan., to Falls City, Neb., a distance of 53 miles. The extension serves several additional cities in northeast Kansas.

Natural Gas Heats Denver Hospital

A NATURAL gas conversion job of prime importance has been completed by the Public Service Company of Colorado under the supervision of C. W. Gale, superintendent of the commercial and industrial gas division, with the installation of gas burners at the National Jewish hospital in Denver. Between 60 and 70 million cu.ft. of natural gas will be used annually to generate steam for the 17 buildings—occupying nearly three entire blocks—that comprise the hospital group.

C. W. Gale

An impressive feature of the job is that the use of gas replaces 3,672 tons of coal per year (costing about $14,000) at a fuel saving of approximately $2,000. Over a two-month period, gas bills have come well within Mr. Gale's estimate of $12,000 a year. Economy was made possible by rebuilding combustion chambers in the two Heine, 315 horsepower, cross-drum, water-tube boilers, and installing modern baffling.

The pair of Heines operate to 75 pounds steam pressure. Formerly, they used automatic stokers and complete coal-handling equipment; but despite these advantages the boilers could not develop more than 140 per cent of rating, while with gas fuel 200 per cent of rating is obtained. Thus under heavy load conditions, one boiler on gas is satisfactorily carrying the load, whereas two boilers would normally be required with coal fuel.

Webster Gas Burners—two for each boiler—manufactured by a subsidiary of the Surface Combustion Company were used.

To doubly insure service and to comply with provisions of the Denver industrial gas contract, a complete oil-burning standby was installed. It consists of a 10,000-gallon oil storage tank; a Hammel duplicate oil pumping set, and pre-heaters with Hammel oil-burning nozzles for each boiler.

In addition to the heating load, steam is used throughout the year for laundry, refrigeration machinery, water heating, kitchen and sterilizer equipment.

The entire cost of providing boilers with gas burners, standby equipment, combustion chamber and rebaffling job was approximately $10,000.

Welty Goes to Detroit

Malcolm W. Welty, who has been connected with the public relations department of the Phillips Petroleum company, Bartlesville, Oklahoma, is being transferred to the Detroit office of the Philfuels company, a Phillips subsidiary, as advertising manager.

Our New Members

[(Continued from page 63)

The Lennox Furnace Co., R. T. Wasson, Secretary, Marshalltown, Ia.
Charles J. Webb & Company, S. N. Smith, Vice-President, 116-18 Chestnut Street, Philadelphia, Pa.
The Staynew Filter Corporation, N. A. Hamill, Secretary, 99 North Water St., Rochester, N. Y.

Active Members

Duesler, J. F., Louisville Gas & Electric Co. 311 W. Chestnut St., Louisville, Ky.
Neuendorf, Paul G., Pennsylvania Gas Co. Warren, Pa.
Blomgren, Herbert, Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Craig, Allan C., The Kompak Co., New Brunswick, N. J.
Graves, W. W., West Texas Gas Company, Amarillo, Tex.
Cass, Neiva Phillips, Texas Cities Gas Co., El Paso Div., 419 N. Stanton, El Paso, Tex.
Mawha, James Kennth, Smoot Engineering Corp., 136 Liberty St., New York, N. Y.
Ten Brook, John Abram, Philadelphia Electric Co., 18 E 5th Street, Chester, Pa.
Barry, Edmund J., State of New Jersey Public Utility Com., 1060 Broad St. Newark, N. J.
Barr, Cameron C., Consolidated Gas, Electric Light and Power Co., Lexington Building, Baltimore, Md.
Brandt, Julius C., Jr., Consolidated Gas, Electric Light and Power Co., Baltimore, Md.
Carpenter, W. H., Consolidated Gas, Electric Light and Power Co., Lexington Building, Baltimore, Md.
Hoffman, J. C., Consolidated Gas, Electric Light and Power Co., Lexington & Liberty Sts. Baltimore, Md.
Morrison, Harry E., Consolidated Gas, Electric Light and Power Co., Liberty & Lexington Sts., Baltimore, Md.
Pollock, Harry E., Consolidated Gas & Electric Co., Baltimore, Md.
Schaffer, Charles D., Consolidated Gas Electric Light and Power Co., Baltimore, Md.
Stackpole, Chester S., Consolidated Gas, Electric Light and Power Co., Lexington & Liberty Sts., Baltimore, Md.
Sampson, Henry Hazen, Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Kelly, Theodore Francis, Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Hanna, John Livingston, Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Anderson, Herman A., The Syracuse Lighting Co., Inc., 109 Mechanic St., Syracuse, N. Y.
Whittaker, Alex. R., West Shore Gas Co., Haverstraw, New York.
McLain, Will, III, Public Service Electric & Gas Co., 80 Park Place, Newark, N. J.
Stark, A. W., Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Ellis, A. William, Consolidated Gas Co. of New York, 4 Irving Place, New York, N. Y.
Terrell, Willard B., Consolidated Gas Co. of New York, 4 Irving Place, New York, N. Y.
Wagner, Louis J., Consolidated Gas Co. of New York, 4 Irving Place, New York, N. Y.
Sperling, Anthony Frederick, Cumberland County Gas Co., Millville, N. J.
Hahn, Elwood E., Cedar Rapids Gas Co., Cedar Rapids, Ia.
Yost, Lillian M., Federal Public Service Corp., 22 West Monroe St., Chicago, Ill.
Pershall, J. R., Public Service Co., 79 Monroe Steet, Chicago, Ill.
Pierson, Harold C., Public Service Electric and Gas Co., 80 Albany St., New Brunswick, N. J.
Schilling, J. T., Des Moines Gas Co., Des Moines, Ia.
Roberts, W. Frank, Standard Gas Equipment Corp., Baltimore, Md.
Nostrand, John W., Long Island Lighting Co., Mineola, L. I., N. Y.
Finley, Willard L., International Coal Carbonization Co., 200 Madison Avenue, New York, N. Y.
Deitzler, Clyde Donald, Public Service Electric & Gas Co., 80 Park Place, Newark, N. J.
Irwin, R. D., United Natural Gas Co., Sharon, Pa.

(Continued on page 77)

Industrial Gas Section

C. C. KRAUSSE, Chairman — C. W. BERGHORN, Secretary — D. W. CHAPMAN, Vice-Chairman

Industrial Publicity

The Publicity Committee, Industrial Gas Section of the American Gas Association, directs attention to the following articles, recently published:

Title	Publication	Date
Conveyors and Ovens for Large Cores	Iron Age	Dec. 5
Heat Treating Aircraft Engine Parts	American Machinist	Dec. 26
Fuels and Methods in Making Auto Fittings	Heat Treating and Forging	Dec. 1
Radio Sets Put on Productive Basis	Iron Age	Dec. 26
Semi-Automatic Forging Furnaces	Heat Treating and Forging	Oct. 1
Beauty Trend in Commerce Develops Demand for Colored Enamels	Ceramic Age	Oct. 1
Melts Various Alloys in Gas-Fired Furnaces	Foundry	Oct. 1
Making Art Metal Radiator Covers	Materials Handling and Distribution	Dec. 1
Art is Factor in Manufacture of Automobile Hardware	Iron Trade Review	Nov. 14
Mounts Furnaces on Springs to Avoid Vibration Stresses	Iron Trade Review	Dec. 12
Die Castings	Foundry	Dec. 1
Gas Modernizes the Forge Furnace	A. G. A. Monthly	Dec. 1
Make Soot Blower Elements	Industrial Gas	Oct. 1
The Real Facts of Industrial Utilization	A. G. A. Monthly	Oct. 1
Heat Treating Parts for the Colt's Machine Gun	Industrial Gas	Nov. 1
Gas Furnaces for Heating Stock Prior to Forging Have Been Improved in Design at Ford Plants	Automotive Industry	Dec. 1
Modern Efficiency in Brick Production	Ceramic Age	Dec. 1
"A.B.C's." of Process Drying	Industrial Power	Dec. 1
Continuous Kilns Used in Modern Chinaware Plant	Fuels and Furnaces	Dec. 1
The Finishing of Metal Radiator Covers	Metal Cleaning and Finishing	Nov. 1
The Influence of Art in Metal Finishing	Metal Cleaning and Finishing	Nov. 1

It is planned to continue this notice as a regular feature of THE MONTHLY in order that industrial engineers may be kept closely in touch with the work of the Publicity Committee.

WHO SHALL PAY?

At the request of a gas company member of the American Gas Association for information as to whether or not a contractor, installing sewer lines in the public streets, has the authority to order the company to temporarily remove its service and refuse compensation for the material and labor necessary to remove and replace, a complete study was made by Counsel for the Association. This matter is of great importance to all distribution executives and copies of this study will be made available to the executives of gas company members of the Association upon application to headquarters.

FIRST HOLDER STILL STANDS

The first gas holder ever built is still standing at Smethwick, England, after 121 years of existence. The iron cylinder was erected in 1808 by William Murdock, founder of the manufactured gas industry, and a bronze memorial tablet was recently unveiled at Smethwick by the present gas company in his honor. Murdock died in 1839.

It is interesting to note that the first gas company in America was established in 1816 at Baltimore, and the second, in 1823, at New York City.

Our New Members

(Continued from page 76)

Maher, P. F., United Natural Gas Co., Oil City, Pa.
Thompson, Carles Scott, Oklahoma City, Okla., Consulting Engineer.
Ginna, Robert E., E. J. Cheney Co., 61 Broadway, New York, N. Y.
Schreiner, William Joseph, Union Gas & Electric Co., Cincinnati, O.
Lang, Eugene C., Utilities Power & Light Corp., 327 S. LaSalle Street, Chicago, Ill.
Wood, Harry, Public Service Electric & Gas Co., Trenton, N. J.
Bachmann, George K., P. S. Electric & Gas Co., 80 Park Place, Newark, N. J.
Chew, Edmund F., Public Service Electric & Gas Co., of New Jersey, 80 Park Place, Newark, N. J.
Webster, Irwin S., Public Service Electric & Gas Co., 80 Park Place, Newark, N. J.
Ball, Francis L., Charles H. Tenney & Co., 200 Devonshire Street, Boston, Mass.
Buggeln, John R., Consolidated Gas Co., 4 Irving Place, New York, N. Y.
Burwell, Earle G., New York Oil Co., Casper, Wyo.
Clement, Frank A., C. H. Geist Co., 1622 Packard Bld., Philadelphia, Pa.
Crandall, A. C., Southern Cities Public Service Co., Atlanta, Ga.
Faller, John A., Menominee & Marinette Light and Traction Co., Menominee, Mich.
Gleason, Agnes M., American Gas Journal, 53 Park Place, New York, N. Y.
Knapp, Lester H., Pawtucket Gas Co., Pawtucket, R. I.
Merrill, Erle R., Combustion Engineering Corp., New Brunswick, N. J.
Myers, Carl B., Iowa Railway and Light Corp., & Ass'n Cos., Cedar Rapids, Ia.
Nolan, Edward, 1524 Chestnut Street, Philadelphia, Pa.
Randall, Bruce M., Peoples Power Co., Moline, Ill.
Riley, Henry M., American Gas Journal, 53 Park Place, New York, N. Y.
Carroll, John W., Student in Gas Engineering, Johns Hopkins University, 2526 Maryland Avenue, Baltimore, Maryland.
Boyer, E. J., Minneapolis Gas Light Co., 24-37th Street, Minneapolis, Minn.
McFeely, Wilbur Morris, Public Service Electric & Gas Co., 80 Park Place, Newark, N. J.
Cassels, Lilian, Lilian Cassels, Inc., 55 West 42nd Street, New York, N. Y.
Campbell, William B., Philfuels Co., Bartlesville, Okla.
Cameron, Reid A., Manufacturers Light & Heat Co., 800 Union Trust Building, Pittsburgh, Pa.
Connelly, John, Westchester Ltg. Co., New Rochelle, N. Y.
Hatch, Prentice M., Stamford Gas & Electric Co., Stamford, Conn.
Hawkins, Ralph D., Bridgeport Gas Light Co., 815 Main St., Bridgeport, Conn.
Herreid, Myron T., Connecticut Coke (Kopper) Co., New Haven, Conn.
Hermsdorf, Walter H., 1918 Prairie Avenue, Chicago, Ill. (Consulting Engineer).
Herringshaw, Don. Edgar, Stevens Wood Inc. Jackson, Mich.
James, Herbert T., Sweet & Doyle Fdy. & Mach. Co., Troy, N. Y.
Kobabe, James M., Lee B. Mettler Co., 406 Main Street, Los Angeles, Cal.
Knight, Wm. H., Jr., The Cleveland Gas Meter Co., Cleveland, Ohio
Mitchell, A. F., Northern Indiana Public Service Co., 649 Hohman St., Hammond, Ind.
Cahill, Walter H., The H. P. Cahill Plumbing Co., Akron, Ohio
Chester, Alden P., Chambers Mfg. Co., Shelbyville, Ind.
Blackburn, F. L., H. L. Doherty Co., 60 Wall St., New York, N. Y.
Adams, William H., Manufacturers Lt. & Ht. Co., 800 Union Trust Bldg., Pittsburgh, Pa.
Westman, Albert Ernest Roberts, Ontario Research Foundation, 47 Queen's Park, Toronto 5, Ont. Canada
Ruitenberg, J. Oliver, Public Service Electric & Gas Co., 80 Park Place, Newark, N. J.
Parkinson, J. B., Public Service Gas & Electric Co., 222 E. State St., Trenton, N. J.
Hansen, John Parkinson, Public Service E. & G. Co., 222 E. State St., Trenton, N. J.
Wyckoff, Elmer Ellsworth, Jr., Public Service Elec. & Gas Co., 80 Park Place, Newark, N. J.
Wilson, Everett J., The United Engrs. & Const. Inc., 112 No. Broad St., Philadelphia, Pa.
Wannack, Otto, 5550 Kenmore Ave., Chicago, Ill.
Ungericht, Hulda Marie, Ohio Fuel Gas Co., 99 N. Front St., Columbus, Ohio
Carpenter, Charles, South Metropolitan Gas Co., 709 Old Kent Road, R. 15, London, Eng.
Latimer, Roy S., 108 Pinewoods Ave., Troy, N. Y.
Casotto, Robert Emie, Public Service Elec. & Gas Co., 184 Park Avenue, Rutherford, N. J.
Anner, M. B., Home Natural Gas Co., Winfield, Kansas
Bryant, C. L., B-Line Boiler Co., E 131 Taft Ave., Cleveland, Ohio
Nickell, Joseph H., The Philadelphia Electric Co., 1000 Chestnut St., Phila., Pa.
Beaird, J. B., The Beaird Corp., Shreveport, La.
Dillard, Guy G., Louisiana Oil Ref. Corp., National Bank Bldg., Shreveport, La.
Flint, Coll T., The H. B. Smith Co., Westfield, Mass.
Hald, Edward P., Westchester Lighting Co., 15 No. Broadway, Tarrytown, N. Y.

(To be continued Next Month)

Technical Section

B. V. PFEIFFER, Chairman H. W. HARTMAN, Secretary R. G. GRISWOLD, Vice-Chairman

$10,000 Annual Prize Award Offered for Most Valuable Science Work

THE largest single monetary award in America for scientific accomplishment has been created by Popular Science Monthly, which, beginning this autumn, will confer an annual prize of $10,000, accompanied by a gold medal, upon the American citizen who has been responsible, during the preceding year, for the achievement in science of greatest potential value to the world.

In making this announcement, O. B. Capen, president of the Popular Science Publishing Co., explained that the award was instituted with a dual purpose—to heighten the interest of the American people in those conquests of the laboratory and the workshop which benefit the entire community, and to focus attention upon the many scientific workers who, without thought of personal profit, toil to better man's control over his physical surroundings.

The award will be bestowed under the auspices of the Popular Science Institute, a research organization maintained by the magazine, of which Prof. Collins P. Bliss, associate dean, New York University, is director. The Institute has enlisted the services of twenty-four leaders in American science to serve as a Committee of Award, whose task it will be to select the prize-winning effort.

Men comprising the Committee of Award are as follows:

Dr. Charles G. Abbot, secretary, Smithsonian Institution; Prof. Collins P. Bliss, director, Popular Science Institute; Dr. Samuel A. Brown, dean, New York University and Bellevue Hospital Medical College; Dr. George K. Burgess, director, United States Bureau of Standards; Dr. William W. Campbell, president, University of California; Dr. Harvey N. Davis, president, Stevens Institute of Technology; Dr. Arthur L. Day, director, Geophysical Laboratory, Carnegie Institution; Dr. E. E. Free, consulting engineer; Travis Hoke, editor, Popular Science Monthly; Dr. Frank B. Jewett, vice-president, American Telephone and Telegraph Co.

Dr. Vernon Kellogg, permanent secretary, National Research Council; Charles F. Kettering, president, General Motors Research Corporation; Dr. Arthur D. Little, president, Arthur D. Little, Inc.; Dr. John C. Merriam, president, Carnegie Institution; Dr. Robert A. Millikan, chairman, executive council, California Institute of Technology; Dr. Henry Fairfield Osborn, president, American Museum of Natural History; Dr. Elmer A. Sperry, chairman, board of directors, Sperry Gyroscope Co.; Dr. Samuel W. Stratton, president, Massachusetts Institute of Technology; Dr. Elihu Thomson, director, Thomson Laboratory of the General Electric Co., Lynn, Mass.

Dr. Edward R. Meidlein, director, Mellon Institute of Industrial Research; Henry Herman Westinghouse, chairman, board of directors, Westinghouse Airbrake Co.; Dr. Albert E. White, director, Department of Engineering Research, University of Michigan; Dr. R. Willis Whitney, director of Research, General Electric Co., Schenectady, N. Y., and Orville Wright, co-inventor of the airplane.

SUB-COMMITTEE NAMED

At the reorganization meeting of the Chemical Committee, Technical Section of the American Gas Association, held recently, the following sub-committee on program of both the Convention and Spring Conference was appointed by Chairman S. P. Burke as follows:

R. A. Belyea, Chairman, Consolidated Gas Company; M. C. K. Jones, Baltimore, Maryland; H. J. Rosa, Koppers Company Laboratories, Mellon Institute, Pittsburgh, Pennsylvania, and E. C. Uhlig, Brooklyn Union Gas Company, Brooklyn, New York.

Satisfactory Heating Test

EXCELLENT results have been achieved by Northwestern Public Service Company in recent tests on house heating with gas. The severe weather experienced in the territory served by the company led to experiments to determine satisfactory domestic gas heating methods. Tests of flue gases, flue temperatures and gas consumption by conversion type burners have so far shown satisfactory results and economical costs. The company supplies gas to Aberdeen, Huron and Mitchel, in South Dakota and to North Platte in Nebraska.

New Machine For Utility Accounting

The 1929-30 Accounting Section Committee on Development of Accounting Systems and Office Labor-Saving Devices plans to publish each month a short description of recent developments in public utility accounting equipment. The January issue of **The Monthly** announced a new type of duplicating machine that will answer many needs in our office work. Below is a summary of improvements recently announced by the Burroughs Adding Machine Company on certain of their machines that are used extensively in public utility accounting.

Three separate counting features have been developed on the Burroughs billing machine which increase the amount of statistics which may be obtained as a by-product of the billing operation. One of these counting devices can be used to count the number of items accumulated in each register, another to count the number of lines that are written on the bills and the third can be used to count the number of bills.

Another development is reported which further increases the amount of information obtainable for statistical and proof purposes on the multiple register billing machine, in cases where the customers' billing is on a gross and net basis. Using this new feature, the consumption and net amount of the bill are set up simultaneously upon the keyboard and the proper accumulating register is selected for the class of service desired. When the machine operates, the consumption only prints on the bill, but both the consumption and net amounts add in the register. As the carriage tabulates, the consumption keys are released but the net amount is retained on the keyboard. The gross amount then may be entered on the keyboard and both gross and net print in the proper position on the bill.

A new type of front feed carriage has been developed on the Burroughs ledger posting machine. This carriage permits a more rapid insertion of the ledger sheets and facilitates line finding. Several operating strokes which were necessary on the old type machine have been eliminated, which speeds up machine operation.

Aids Civic Movement

J. F. Owens, vice-president and general manager of the Oklahoma Gas & Electric Company, and a vice-president of the Oklahoma City Chamber of Commerce, will serve as general chairman of the annual campaign to raise the budget for carrying on the work of that organization for 1930.

Commercial Section

G. E. WHITWELL, Chairman J. W. WEST, Jr., Secretary E. R. ACKER, Vice-Chairman

Sales Conference to Hear Samuel Insull, Jr.

SAMUEL INSULL, Jr., will be the first speaker at the 1930 Mid-West Regional Gas Sales Conference, sponsored by the Commercial Section of the American Gas Association, which will take place at the Hotel Sherman, Chicago, Ill., February 13-14.

Registration will begin at 9 o'clock, Thursday morning, February 13, and the initial session will start at 10 o'clock. At this time prominent men in the industry will present papers as follows:

"Promoting Sales by Regional Advertising" and "What the Sales Department can do for a Natural Gas Company."

That afternoon will be devoted entirely to house heating. Papers will cover the following subjects: "Selling Central Plant House Heating" and "Chicago's Conversion Burner Rental Plan."

The second day's program will open at 9:30 a.m. with a paper on "Marketing Gas Refrigerators," followed by a symposium on "Selling Ranges," "The Complete Home Laundry," "Incineration," "Auxiliary Space Heating." This session will close with a talk on "Group Appliance Selling."

The following papers will be presented Friday afternoon: "Promoting Water Heater Sales" and "Large Volume Water Heating."

Among those who have been invited to speak are the following:

W. H. Hodge, H. M. Byllesby Co., Chicago; Fred Karr, St. Joseph Gas Co., St. Joseph, Mo.; L. R. Parker, Allied Power and Light Corp., Jackson, Mich.; H. B. Johns, The Peoples Gas Light and Coke Co., Chicago; John K. Swanson, Minneapolis Gas Light Co., Minneapolis; Jack Torbert, Wyandotte County Gas Co., Kansas City.

Throughout the two-day program ample time will be allowed for general discussion of the papers presented.

Urges Cleanliness Appeal in All Water-Heating Activities

AT a recent meeting of the Water Heating Committee, Commercial Section of the American Gas Association, M. M. Scott directed attention to the fact that in a survey of thirty-six magazines published in November it was shown that the cost of advertising, devoted directly or indirectly toward selling cleanliness requiring hot water for use, totaled two and one-quarter million dollars. He said that he felt that this clearly indicated the importance of the gas industry utilizing the cleanliness appeal in all of its water-heating activities.

W. L. Jones states that in his opinion the main difficulty in selling water heating was to get the customer to appreciate the need and importance of automatic hot water service. He felt that more effective advertising and the use of the salesmen's manual should be urged by the Committee.

H. E. Dexter reported that his company's sales during the past two years had been as follows:

1928—one automatic heater to every 28 customers.
1929—one automatic heater to every 10½ customers.
Bogey for 1930—one heater to every 8 customers.

Chairman Stanley Jenks stated that while many companies are utilizing effective sales plans, last year's survey indicated that the majority of companies still are unimpressed with the importance of intensive water heating sales activities.

In his opinion any company can with comparative ease seli one heater to every 40 customers, although only a few companies are at present succeeding to this extent.

"The Gas Man"

I HAVE in my scrap-book a poem which, so far as I know never received a reward of $2,000, but which, it seems to me, much more nearly meets the popular demand; much more nearly represents the current taste," writes Thomas Lomax Hunter, Virginia Columnist. "It is entitled 'The Gas Inspector,' and is full of simple and touching thoughts:

Be kind to the gas man when he calls;
He comes for to look at the meter.
Illuminate his pathway with smiles,
And greet him with cheerful features.

For he may have children of his own,
And perhaps a loving wife,
Whom he is trying to support
By working day and night.

How would you like, do you think,
If you was a gas inspector,
And when you went to call on folks
They looked like they suspected you?

And so I say be kind to him,
For you never may see him again.
Next year, the People's Light & Gas Company
May hire some different man.

"Now that is the kind of poetry I am capable of appreciating," stated Mr. Hunter. "It is the sort I have been reading in the newspapers for thirty years. I wager it is in many scrap-books. It is so homely, unpretentious and sympathetic. It gets beneath your skin and makes you turn loose the furtive tear. It has simplicity and directness of motive."

To Help Oklahoma Traffic Congestion

Reid McBeth, public relations director, Oklahoma Natural Gas Corporation, has been appointed a member of the Tulsa Traffic Commission. The purpose of this commission is to improve the congested traffic situation in Tulsa.

Accounting Section

J. L. CONOVER, Chairman H. W. HARTMAN, Secretary J. I. BLANCHFIELD, Vice-Chairman

Activities Advance Rapidly

By JOHN L. CONOVER, Chairman

THE passing of 1929 and the introduction of the New Year sees the activities of the Accounting Section well under way. Five commmitees held their organization meetings during December and each of these committees has adopted a constructive and ambitious program for the Association year. Those committees that did not hold organization meetings in December have planned such meetings. A summary of the activities of each committee, as well as other items of general interest concerning the Section, is given below:

Dates Selected for the Spring Conference

Replies to the questionnaire sent out to determine the preference of the Managing Committee as to dates for the Spring Conference show that a large majority of the members have chosen Thursday, Friday, and Saturday, April 3, 4 and 5. The conference will be held at the Stevens Hotel, Chicago, on Thursday and Friday and the Managing Committee will meet on Saturday morning.

Program for Spring Conference

A tentative program for the Spring Conference has been prepared and was submitted at the January meeting of the Managing Committee.

Stanley P. Farwell, of the Business Research Corporation, Chicago, has consented to present an address on "Accounting Research for Gas Utilities." W. H. Barton, of the Portland Gas and Coke Company, has advised that, due to certain changes in company policies, he cannot present a paper on incentive wage plans but we are awaiting a reply from Mr. Barton to a request that he describe his machine plan for merchandise accounting. In lieu of Mr. Barton's paper on financial incentives it is planned to have a series of short presentations on incentive plans for meter readers and collectors, from representatives of various companies.

An attempt has been made to prepare a well-balanced program that will appeal to accountants, customer relations men, personnel men and the general executives who make up the Section and one that will be equally interesting and instructive to representatives of both manufactured and natural gas companies.

Manufacturing Membership

The chairman of the Manufacturers' Section has suggested that the Accounting Section consider representatives of manufacturers of office labor-saving devices, who are members of the Section, for membership on the Managing Committee.

Joint Subcommittee on Advanced Accounting

A special subcommittee, representing both the General Committee on Education of Gas Company Employees and the Accounting Section, has been appointed to study the advisability of providing an advanced accounting course along the lines of that of the National Electric Light Association.

This subcommittee plans to make a survey of utility companies by writing to the members of the Managing Committee, to obtain their views on the need for an A. G. A. accounting course, in addition to the N. E. L. A. course. If the subcommittee reports in the affirmative, the Accounting Section will recommend that $1,000 be contributed towards the cost of revision and printing.

The personnel of this joint subcommittee follows:

From Educational Committee

W. H. Diehl, Chairman, Westchester Lighting Company, Mount Vernon, N. Y.
W. H. Barton, Portland Gas and Coke Company, Portland, Ore.
L. R. Dutton, Jenkintown Bank and Trust Co., Jenkintown, Pa.
Gordon M. Peterson, Public Service Electric and Gas Co., Newark, N. J.

From Accounting Section

E. B. Luce, Consolidated Gas Electric Light and Power Co., Baltimore, Md.
Gordon M. Peterson, Public Service Electric and Gas Co., Newark, N. J.
N. D. Van Blarcom, Consolidated Gas Company of New York, New York City.
M. F. Reeder, The Peoples Gas Light and Coke Company, Chicago, Ill.
H. A. Koechling, Missisippi River Fuel Corp., New York City.

Committee on Uniform Classification

The first meeting of this committee was held on December 9 at St. Louis, Missouri. The main problem before the committee this year is the revision of the uniform classification, which has remained unchanged since 1920. Various changes in the industry make a revision both desirable and necessary. This committee, and the similar body of the N. E. L. A., are cooperating in this work with the Commissioner's Committee, from which official body the present uniform classification emanated. Preliminary steps were taken to determine in advance the machinery by which the views of both the gas industry and the electric industry could be obtained.

Chairman Brundage was authorized to appoint a subcommittee to take up the matter with the N. E. L. A., with a view to engaging such assistance as may be necessary to initiate and carry out the project.

The committee was of the opinion that answers to questions referring to the Uniform Classification should be published in the A. G. A. MONTHLY, so that members of the Association may avail themselves of this information.

Merchandise Accounting

At the organization meeting of this commitee, held in New York City on December 13, Chairman Davidson stated what he felt were the three most important matters for the committee to undertake this year, as follows:

1. To carry the classification for merchandise accounts to a conclusion that would represent the best ideas of all of the companies and the results of the extensive discussion of controversial items that have been had by the Committee.
2. To build up more consistent data as to load building results of merchandising and new business efforts. This is of particular importance toward giving the public a proper picture of the underlying objectives of all merchandising efforts by the utilities, and
3. To prepare, in response to request from Association Headquarters, a public policy statement regarding the new business and merchandising activities of the utilities, to be available to Association Headquarters for such use as may be deemed desirable, in indicating the viewpoints and policies of the industry upon this question. The importance of a united stand before the public by the industry upon this subject was emphasized.

Detailed discussion on these subjects followed.

C. J. Fue was appointed as chairman of a special subcommittee to study Classification of Merchandising Accounts. The principal objective of this subcommittee is to bring to completion the accounting classification submitted in tentative form in the 1929 report.

D. M. DeBard was appointed chairman of a subcommittee on Load Building Statistics. This body plans to undertake a study of the subject of evaluation of the load building results of appliance sales.

Accounting Systems and Labor-Saving Devices

The organization meeting of this committee was held on December 18 in New York City. The morning session was devoted to a discussion of the general field to be covered and the subcommittee chairmen outlined their tentative plans. In the afternoon separate meetings of each subcommittee were held.

The subcommittee on customers' accounting plans to follow up closely the latest developments in accounting equipment. Several important projects are underway, including a new billing machine which, it is expected, will be ready for demonstration at the Spring Conference. This subcommittee will also make a study of the application of accounting machines to consumers' deposits.

The general office accounting subcommittee will continue its study of machine methods started last year for accounts payable, expense ledgers, detail and general ledgers and authorization ledgers.

The stores accounting subcommittee hopes to complete its recommendation for a machine system in time for presentation at the Spring Conference.

Natural Gas Committee

Chairman Nutt has delayed calling a meeting of his committee, pending the appointment of additional representatives from natural gas interests. E. N. Watkins, of the Arkansas Natural Gas Corporation, has recently been appointed. Due to the press of business, S. M. Smallpage was forced to resign from this committee.

It is expected that a meeting of this committee will be held in Pittsburgh in the near future.

Exhibit Committee

At a meeting of the Exhibit Committee, held in New York on December 19, each committee member was assigned certain manufacturing companies to approach with reference to exhibiting at the Fall Convention. Early indications point to an unusually large exhibit this year. Chairman Curren reports that, in addition to the three companies mentioned in last month's letter, five others have signified their intention of exhibiting.

Exhibits of office labor-saving devices at the Spring Conference will be conducted on the same basis as last year. Each exhibitor should make application for exhibit space direct to the Hotel Stevens, rather than to Association Headquarters.

Relations with Customers

The organization meeting of Mr. Prezzano's committee, held in New York City on December 18, was devoted largely to the selection of speakers and subjects for the public relations symposium to be held at the Spring Conference. After full consideration the following selections were made:

(a) H. T. East—subject to be announced.
(b) Chairman Prezzano—on follow-up operations necessary to determine satisfaction of customers with service rendered.
(c) J. F. Rooney, or someone selected by him, on coordination of commercial and operating departments.
(d) M. E. Brown—experiences of Brooklyn Union Gas Company in changing over from counter arrangement to individual desks.

A. G. A. Statistics

Chairman McKana reports that Francis A. Keane, of Public Service Electric and Gas Company, has been added to the personnel of this committee and G. U. Stewart, of the Philadelphia Electric Company, has replaced Edward Porter.

Natural Gas Output Reaches Huge Figure

The growth of the natural gas industry was materially accelerated during 1929, as a result of the completion of numerous distribution projects that greatly increased the utilization of natural gas. According to a preliminary estimate the marketed production of natural gas during the year 1929 aggregated the huge volume of 1,900,000,000,000 cu.ft.

Application of Uniform Classification Account

At the recent meeting of the Committee on Uniform Classification of Accounts held in St. Louis, it was decided that answers prepared by the Committee to questions affecting the application of the Uniform Classification of Accounts should be published in the A. G. A. MONTHLY whenever they were of sufficiently general application.

In accordance with this policy, the following question and answer from H. M. Brundage, Chairman, relating to the practice with regard to retirement reserves for equalizing extraordinary repairs and other similar purposes is reprinted herewith:

Q. What is the general practice in the use of retirement reserves for equalizing extraordinary repairs and other similar purposes? Most companies, as you know, set up a special reserve for extraordinary repairs of benches and retorts to provide for the larger repairs recurring at intervals of more than a year.

A. It is hoped that in the reasonably near future a comprehensive classification of production accounts for companies operating by the coke oven process can be promulgated and officially adopted. This Committee has given the subject considerable attention and has before it a detailed report prepared by a subcommittee, of which Mr. Short, of Providence, R. I., was Chairman. Pending the official adoption of a complete classification, we are advised that those companies which operate under a coke oven process have been able to maintain adequate records through the subdivision of existing accounts provided by the National Classification. Coke oven operations have introduced a problem of maintenance not common to water gas and coal gas operations, at least to the same extent, for major repairs recurring periodically after a number of years, for the replacement, in large part, of the oven masonry. Correct production costs require the recognition of this unavoidable deferred maintenance by the equalization of oven maintenance expenses through a Reserve account. The most common title for such a reserve is "Oven Replacement Reserve." This is a subdivision of Account 257—"Miscellaneous Reserves," and is not related to Account 251—"Retirement Reserve."

Employee Publications

(Continued from page 52)

quiring proper training in order to become real leaders, emphasized the importance of square dealing and accomplished a long line of other things. It did practically everything for the employee except put the cat out at night, according to the editor. But it wasn't a complete success. The employees thought its chief function was to massage the editor's swollen ego. It was a preachy sheet, and is an illustration of what an employee paper should not attempt to do. It tried to cover too much territory.

The employee publication should keep in mind the average employee.

Does he expect his company publication to displace his favorite newstand magazines?

Does he expect it merely to amuse him?

Does he expect it to tell him how to raise his children?

Does he rush each issue home so his wife can digest the usual page for women, made up of recipes clipped from a cook book, of which she probably has six and rarely uses any?

Does he call the youngsters to crowd around to get a glimpse of the page for the kiddies?

Does he get a thrill if he reads the all too common senseless personals, such as "What do you suppose Mamie will do now since a certain person has been transferred?"

Does he get excited over an article on the habits of the honey bee or the scope of the prune industry?

Does he get a kick out of the numerous pages that make it appear that the principal business of some members of the organization is playing golf?

Does the editor impress him with his editorials, particularly those that point out and explain how wise the board of directors was in taking this or that action?

Does he like to be told a half-dozen times or more in as many different ways in each issue that the only reason he is not more successful is because he doesn't do this or do that?

I believe he does not.

Is he interested when the president, the general manager, or other officials of the company have something to say about the company's policy?

Is he interested in reading instructive articles by his foreman or department head or by a fellow employee? Or one he himself has written on some new wrinkle in the plant, shop or office?

Is he interested in the company's progress; in the progress of the industry; in the general news of the organization?

I believe he is.

Primarily, he is interested in himself

(Continued on page 90)

Manufacturers Section

F. G. CURFMAN, Chairman — C. W. BERGHORN, Secretary — E. S. DICKEY, Vice-Chairman

Gas Heat Installations in One out of Five Homes

DURING the past five years the Public Service Company of Northern Illinois has been concentrating on the addition of house heating by gas to its lines. The development has met with hearty approval throughout its territory, and more than 2100 central gas-fired heating plants have been placed in operation to date. This record speaks well for the acceptance of this method of heating homes and proves conclusively that gas heat is the ultimate heat.

There is a village in this territory in which the general acceptance of gas heating has been truly remarkable. Any home convenience that can be introduced into a territory and within five years be used in at least one out of every five homes, has certainly met with approval and must have delivered 100 per cent satisfaction to those home owners using it.

This is the acceptance that gas heat has received in the Village of Kenilworth. On July 1, 1929, there were 544 gas meters and 114 central gas-fired heating plants in this village, all of which had been installed within the last five-year period.

Interesting facts which are revealed in this community are: First, the effect that such a heating load has upon the average monthly bill rendered; and second, the amount of gas consumed by central heating plants in comparison with the amount of gas used for purely domestic purposes.

Approximately 60 per cent of the gas consumed in this entire village was used for heating purposes through these 114 central heating plants. The average consumption recorded per customer per month during 1928 was 21,468 cubic feet. This figure in itself might not seem remarkable until compared with the average consumption of approximately 3200 cubic feet of gas per customer per month throughout our territory, which is also a representative figure of conditions throughout the country. The comparison presented gives a concise idea of the load building possibilities of gas heat.

Such general acceptance of gas heat in the type of homes located in Kenilworth would indicate that there are other advantages aside from the elimination of furnaces which have a strong appeal to the home owner. Ninety-five per cent of the homes in Kenilworth have one or more servants, and in most instances the owner need never know that there is such a thing as a heating plant in his home. This being the case, the dependability of gas fuel, its cleanliness, the evenness of temperature which can be maintained, ease of control, and the satisfactory service which gas heat renders must be other features which cause its adoption.

From this viewpoint it can easily be seen that gas heating must have even a much stronger appeal to the home owner who tends his own furnace. When he buys gas heating he has made up his mind to throw away his coal shovel, to junk his ash can, and to tend his furnace by the calendar, not by the clock. He has decided that the only attention he cares to give his heating plant is the winding of an eight-day clock once each week.

If people are approached with the story of gas heat and made to realize its advantages, they will likely weigh the values assigned to various comforts and conveniences in the home, and list gas heat among one of the necessities.

Many people at the present time are giving this consideration to the heating problem, and a large percentage of our sales today are made in homes where the owner tends his own furnace; by installing automatic gas heating he is relieved of this attention. This trend can only become more and more marked as time goes on, for the average home owner wants convenience, and is more than willing to pay any slight additional cost to get it.

INSPECT LINES BY PLANE

The Kansas Pipe Line & Gas Company, Salina, Kan., one of the newest members of the North American group, which supplies natural gas service to central Kansas, recently purchased an airplane. This modern means of transportation was necessary that officials of the company might inspect the gas line, about 200 miles of which now are under construction in Kansas, in the most efficient and most expeditious manner.

The Kansas Pipe Line & Gas Company territory covers approximately 550 miles. Under the best possible conditions it was found that E. N. Duree, general manager of the property, required about four days to cover the distance by automobile. In order to save time and permit Mr. Duree more closely to supervise construction work on the pipe line, it was decided to provide the airplane, in which it is possible for him to get over the entire system in one day. The ship is of the same type as used by Clarence Chamberlin in his flight to Berlin.

Baltimore Extensions

EXTENSION of gas service to Reisterstown and Glyndon is planned by the Consolidated Gas Electric Light and Power Company in Baltimore, Md. The work probably will start in the spring and be completed within the year.

Engineers of the company have made surveys and an official said that it had been determined to make the extension from Pikesville, where the lines now end. The new high-pressure system devised by the company will be used.

Hubbard Advances

Ralph G. Hubbard, staff engineer for the Public Service Company of Colorado, has been appointed Cities Service industrial development commissioner for the Denver district.

AMERICAN GAS ASSOCIATION

Monthly Summary of Gas Company Statistics

JANUARY, 1930

Issued monthly by the Statistical Department of the American Gas Association
420 Lexington Avenue, New York, N. Y.

PAUL RYAN, Statistician

DESPITE an apparent tendency toward retarded industrial operations in many sections of the country, gas utility sales for November registered an increase of some eleven per cent over the same month of the preceding year, according to reports received by the Statistical Department of the American Gas Association from companies representing approximately 80 per cent of the industry.

For the eleven months ending with November these companies reported gas sales of nearly 404 billion cu.ft., an increase of 9.8 per cent, and revenues of $380,217,324, which represented a gain of 4.2 per cent over the corresponding period of the preceding year.

It is of interest to compare these facts with data prepared by the National Industrial Conference Board indicating that for this same eleven-month period the production of minerals increased 7 per cent, manufacturing production in general gained 8 per cent, freight cars loaded and department store sales each increased 3 per cent, while at the same time there was a decline of 12 per cent in the volume of building contracts awarded.

A comparison of November sales of these companies with similar data for the preceding month of October indicates a gain of approximately 5 per cent, which is somewhat less than the usual seasonal increase from October to November.

This would seem to be accounted for in large part by the retardation in general industrial activity characterizing the last two months of 1929. This was particularly true of certain sections of the country such as Illinois, where gas sales for industrial-commercial purposes declined about 2 per cent from October to November; Wisconsin where industrial-commercial sales decreased about 3 per cent and Michigan, which registered a decline of more than 9 per cent in this class of business from October to November. In considering such data it should, of course, be realized that the month of November has one day less than October and in addition practically loses one full working day because of the Thanksgiving holiday. Even allowing for such factors, however, it still appears that the present recession in general industrial activity has not been without its effects on gas utility sales for industrial-commercial uses.

However, most sections of the country still report satisfactory gains in total gas sales, owing to the fact that temporary retardation in one phase of gas sales is compensated for by expansion in some other field, such as househeating and other new uses, demonstrating the soundness of that policy of broadening and diversification of markets through the discovery of new fields of usefulness for gas service, which has to an increasing extent characterized the industry at large during the past few years.

The sale of gas for househeating purposes during November increased 33 per cent over the same month of the preceding year in the state of Illinois. In Wisconsin the increase in this class of business was 42 per cent, in Michigan 47 per cent and Connecticut 118 per cent.

In New England and the Middle Atlantic States, total gas sales in November averaged about 2.5 per cent above the preceding year. In the North Central States the gain averaged about 5 per cent. In the South Atlantic States, however, comprising Delaware, District of Columbia, Florida, Maryland and Virginia, total gas sales in November were approximately the same as for November a year ago.

In the Pacific Coast States, the increasing substitution of natural for manufactured gas precludes effective comparisons of sales in physical units, but for the eleven months ending with November, revenue from gas sales increased 8.3 per cent over the corresponding period of the preceding year.

COMPARATIVE STATISTICS OF 97 UNITED STATES GAS COMPANIES FOR MONTH OF NOVEMBER, 1929

	Month of November			*Eleven Months Ending November 30*		
	1929	*1928*	*Per cent Increase*	*1929*	*1928*	*Per cent Increase*
Customers	9,717,549	9,509,941	2.2		*See November*	
Gas Sales (MCF)	39,451,123	35,528,626	11.0	403,762,669	367,583,118	9.8
Revenue (Dollars)	35,336,419	34,529,090	2.3	380,217,324	364,973,051	4.2
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	14,944,466	16,051,028	— 6.9	160,063,654	175,376,942	— 8.7
(b) Coal Gas	2,475,839	2,742,000	— 9.7	26,818,476	31,488,028	—14.8
(c) Coke Oven Gas	4,047,745	3,307,790	22.4	44,187,984	34,324,566	28.7
(d) Oil Gas	2,514,043	2,830,315	—11.2	28,712,762	26,773,735	7.2
(e) Total Gas Produced	23,982,093	24,931,133	— 3.8	259,782,876	267,963,271	— 3.1
Coke Oven Gas Purchased	9,134,999	7,218,134	26.6	93,275,643	71,831,376	29.9
Total Mfd. Gas Produced and Purchased	33,117,092	32,149,267	3.0	353,058,519	339,794,647	3.9
Natural Gas Purchased	10,647,281	6,756,284	57.6	88,939,545	58,694,492	51.5
Total Gas Produced and Purchased	43,764,373	38,905,551	12.5	441,998,064	398,489,139	10.9

Geographical Grouping of Companies

GROUP A.—comprising the New England States: Connecticut, Massachusetts, New Hampshire, Rhode Island and Vermont.

GROUP B.—comprising the Middle Atlantic States: New Jersey, New York and Pennsylvania.

GROUP C.—comprising the East North Central States: Illinois, Indiana, Michigan, Ohio and Wisconsin.

GROUP D.—comprising the West North Central States: Iowa, Minnesota, Missouri, Nebraska and North Dakota.

GROUP E.—comprising the South Central and Mountain States: Colorado, Louisiana and Tennessee.

GROUP H.—comprising the South Atlantic States: Delaware, District of Columbia, Florida, Maryland and Virginia.

GROUP I.—comprising the Pacific Coast States: California, Oregon and Washington.

GROUP A—NEW ENGLAND STATES

(Data reported by 22 companies whose sales constitute 75% of the total sales of gas in the New England States)

	Month of November			*Eleven Months Ending November 30*		
	1929	*1928*	*Per cent Increase*	*1929*	*1928*	*Per cent Increase*
Customers	1,040,223	1,023,521	1.6		*See November*	
Gas Sales (MCF)	2,950,723	2,884,305	2.3	31,167,324	29,593,180	5.3
Revenue (Dollars)	3,454,671	3,435,553	0.6	37,169,474	35,821,952	3.8
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	1,389,718	1,306,848	6.3	14,040,756	15,758,793	—10.9
(b) Coal Gas	583,941	551,048	6.0	6,535,658	7,316,835	—10.7
(c) Coke Oven Gas	294,235	296,898	—0.9	3,309,908	3,289,884	0.6
(d) Total Gas Produced	2,267,894	2,154,794	1.0	23,886,322	26,365,512	— 9.4
Coke Oven Gas Purchased	954,882	955,047	—0.2	10,371,076	6,181,509	67.8
Total Gas Produced and Purchased	3,222,776	3,109,841	3.6	34,257,398	32,547,021	5.3

GROUP B—MIDDLE ATLANTIC STATES

(Data reported by 23 companies whose sales constitute approximately 85% of the sales of manufactured gas in the Middle Atlantic States)

Customers	3,779,534	3,716,721	1.7		*See November*	
Gas Sales (MCF)	11,725,141	11,417,756	2.7	124,354,306	121,741,290	2.2
Revenue (Dollars)	13,200,298	12,994,642	1.6	141,923,341	139,758,675	1.6
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	7,587,255	8,264,768	— 8.2	80,511,063	86,960,184	— 7.4
(b) Coal Gas	694,527	829,638	—16.3	7,237,771	9,418,379	—23.2
(c) Coke Oven Gas	1,854,544	1,362,531	36.1	20,481,236	13,574,095	50.9
(d) Oil Gas	147,441	——	—	430,927	——	—
(e) Total Gas Produced	10,283,767	10,456,937	— 1.7	108,660,996	109,953,095	— 1.2
Coke Oven Gas Purchased	2,537,030	1,833,907	38.3	24,744,726	19,437,642	27.3
Total Mfd. Gas Produced and Purchased	12,820,797	12,290,844	4.3	133,405,723	129,390,737	3.1
Oil and Natural Gas Purchased	82,525	78,816	4.7	829,719	803,664	3.2
Total Gas Produced and Purchased	12,903,322	12,369,660	4.3	134,235,442	130,194,401	3.1

GROUP C—EAST NORTH CENTRAL STATES

(Data reported by 26 companies whose sales constitute approximately 7% of the total sale of manufactured gas in East North Central States)

	Month of November			*Eleven Months Ending November 30*		
	1929	*1928*	*Per cent Increase*	*1929*	*1928*	*Per cent Increase*
Customers	2,476,354	2,382,050	4.0		*See November*	
Gas Sales (MCF)	9,829,772	9,296,083	5.7	106,759,265	97,909,266	9.0
Revenue (Dollars)	9,327,150	8,850,938	5.4	100,677,604	94,337,159	6.7
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	3,295,508	3,733,809	—11.7	38,483,398	40,913,113	— 5.9
(b) Coal Gas	952,026	1,106,798	—14.0	10,476,583	11,414,446	— 8.2
(c) Coke Oven Gas	1,667,771	1,408,838	18.4	17,946,417	14,867,113	20.7
(d) Oil and Natural Gas	484	263	—	2,942	3,366	—
(e) Total Gas Produced	5,915,789	6,249,708	— 5.4	66,909,340	67,198,038	— 0.4
Coke Oven Gas Purchased	4,666,655	3,608,921	29.3	47,375,602	36,951,408	28.2
Total Mfd. Gas Produced and Purchased	10,582,444	9,858,629	7.3	114,284,942	104,149,446	9.7
Natural Gas Purchased	82,143	70,715	16.2	821,359	808,818	1.6
Total Gas Produced and Purchased	10,664,587	9,929,344	7.4	115,106,301	104,958,264	9.7

GROUP D—WEST NORTH CENTRAL STATES

(Data reported by 9 companies whose sales constitute approximately 75% of the total sales of manufactured gas in the West North Central States)

Customers	556,911	554,919	0.4		*See November*	
Gas Sales (MCF)	1,832,089	1,748,269	4.8	19,426,539	18,747,423	3.6
Revenue (Dollars)	1,850,867	1,729,285	7.0	19,504,781	18,718,465	4.2
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	1,156,778	999,366	15.8	11,901,930	11,051,952	7.7
(b) Coal Gas	203,681	241,736	— 5.2	2,191,494	2,236,950	— 2.0
(c) Coke Oven Gas	176,991	184,080	— 3.9	1,845,254	1,980,650	— 6.8
(d) Total Manufactured Gas Produced	1,537,450	1,398,182	10.0	15,938,678	15,269,552	4.4
Coke Oven Gas Purchased	290,486	319,224	— 9.0	3,169,517	3,154,973	0.5
Total Mfd. Gas Produced and Purchased	1,827,936	1,717,406	6.4	19,108,195	18,424,525	3.7
Oil and Natural Gas Purchased	109,071	97,074	12.4	1,079,329	961,032	12.3
Total Gas Produced and Purchased	1,937,007	1,814,480	6.8	20,187,524	19,385,557	4.1

GROUP E—SOUTH CENTRAL AND MOUNTAIN STATES

(Data reported by 4 companies including 3 which have changed over to natural gas)

Customers	204,043	195,522	4.4		*See November*	
Gas Sales (MCF)	1,533,604	984,967	55.7	13,224,549	7,700,126	71.7
Revenue (Dollars)	825,750	663,473	24.4	7,607,944	7,477,055	1.8
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	15,345	165,374	— 90.7	351,820	5,072,149	— 93.1
(b) Coal Gas	40,553	39,780	1.9	353,589	1,101,418	— 67.9
(c) Total Mfd. Gas Purchased	55,898	205,154	— 72.8	705,409	6,173,567	— 88.6
Natural Gas Purchased	1,934,589	915,241	111.4	16,544,403	2,237,518	—
Total Gas Produced and Purchased	1,990,487	1,120,395	77.7	17,249,812	8,411,085	105.1

GROUP H—SOUTH ATLANTIC STATES

(Data reported by 7 companies whose sales constitute approximately 68% of the total sales of gas in the South Atlantic States)

Customers	411,542	398,876	3.2		*See November*	
Gas Sales (MCF)	1,800,067	1,795,885	0.2	19,571,935	18,980,210	3.1
Revenue (Dollars)	1,680,510	1,697,164	—1.0	18,280,178	18,044,455	1.3
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas Made	1,351,504	1,440,676	—6.2	13,242,943	14,224,172	— 6.9
Coke Oven Gas Purchased	685,946	501,035	36.9	7,614,722	6,105,844	24.7
Total Gas Produced and Purchased	2,037,450	1,941,711	4.9	20,857,665	20,330,016	2.6

GROUP I—PACIFIC COAST STATES

(Data reported by 6 companies whose sales constitute approximately 82% of the total sales of gas in the Pacific Coast States)
(Two companies distribute natural gas and Pacific Gas and Electric Co. is changing over to natural gas)

	Month of November			Eleven Months Ending November 30		
	1929	1928	Per cent Increase	1929	1928	Per cent Increase
Customers	1,248,942	1,238,332	0.9		See November	
Gas Sales (MCF)	9,779,727	7,401,361	32.1	89,258,751	72,911,623	22.4
Revenue (Dollars)	4,997,173	5,158,035	— 3.1	55,054,002	50,815,290	8.3
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	148,358	140,187	5.8	1,531,744	1,396,579	9.7
(b) Coal Gas	1,111	——	—	23,381	——	—
(c) Coke Oven Gas	54,204	55,443	— 2.2	605,169	612,387	— 1.2
(d) Oil Gas	2,366,118	2,830,052	—16.4	28,278,893	26,770,369	5.6
(e) Total Manufactured Gas Produced	2,569,791	3,025,682	—15.1	30,439,187	28,779,335	5.8
Natural Gas Purchased	8,438,953	5,594,438	50.8	69,664,735	53,883,460	29.3
Total Gas Produced and Purchased	11,008,744	8,620,120	27.7	100,103,922	82,662,795	21.1

STATE OF MASSACHUSETTS

(Data reported by 11 companies whose sales constitute 77% of the total sales of gas in the state of Massachusetts)

Customers	663,478	653,856	1.5		See November	
Gas Sales (MCF)	1,806,507	1,778,096	1.6	19,062,228	18,396,110	3.6
Revenue (Dollars)	2,110,593	2,117,898	—0.4	22,722,872	22,237,220	2.2
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	965,474	922,175	4.7	9,789,446	9,508,981	2.9
(b) Coal Gas	423,452	388,161	9.1	4,752,993	4,474,930	6.2
(c) Coke Oven Gas	63,651	60,175	5.8	702,082	692,435	1.4
(d) Total Gas Produced	1,452,577	1,370,511	6.0	15,244,521	14,676,346	3.9
Coke Oven Gas Purchased	511,277	511,802	—0.1	5,505,661	5,333,926	3.2
Total Gas Produced and Purchased	1,963,854	1,882,313	4.3	20,750,182	20,010,272	3.7

STATE OF CONNECTICUT

(Data reported by 5 companies whose sales constitute 76% of the total sales of gas in the state of Connecticut)

Customers						
Domestic	218,318	214,867	1.6			
Househeating	754	340	121.8			
Industrial and Commercial	8,725	7,895	10.5		See November	
Miscellaneous	116	118	—			
Total	227,913	223,220	2.1			
Gas Sales (MCF)						
Domestic	498,445	493,300	1.0	5,404,186	5,072,116	6.5
Househeating	39,877	18,314	117.7	263,939	120,102	119.8
Industrial and Commercial	158,067	151,239	4.5	1,676,364	1,492,005	12.4
Miscellaneous	2,214	2,610	—	22,940	23,165	—
Total	698,603	665,463	5.0	7,367,429	6,707,389	9.8
Revenue (Dollars)						
Domestic	638,965	632,941	1.0	7,009,585	6,561,602	6.8
Househeating	33,024	16,684	97.9	220,622	109,129	2.2
Industrial and Commercial	145,457	144,669	0.5	1,554,168	1,462,398	6.3
Miscellaneous	1,598	1,885	—	17,255	17,024	—
Total	819,044	796,179	2.9	8,801,630	8,150,153	8.0
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	251,149	236,626	6.1	2,692,799	4,808,812	— 44.0
(b) Coal Gas	33,149	34,460	—3.8	361,597	1,492,456	— 75.8
(c) Total Gas Produced	284,298	271,086	4.9	3,054,396	6,301,268	— 51.5
Coke Oven Gas Purchased	443,605	443,243	0.1	4,865,415	847,583	474.0
Total Gas Produced and Purchased	727,903	714,329	1.9	7,919,811	7,148,851	10.8

STATE OF NEW YORK

(Data reported by 10 companies whose sales constitute 85% of the total manufactured gas sales in the state of New York)

	Month of November			Eleven Months Ending November 30		
	1929	1928	Per cent Increase	1929	1928	Per cent Increase
Customers	2,275,813	2,229,769	2.1		See November	
Gas Sales (MCF)	6,698,869	6,686,120	0.2	73,505,921	73,068,348	0.6
Revenue (Dollars)	7,685,086	7,664,837	0.3	84,618,811	84,354,922	0.3
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	4,859,775	5,313,401	— 8.5	49,742,954	55,524,156	—10.4
(b) Coal Gas	592,458	531,689	11.4	6,043,151	6,137,893	— 1.5
(c) Coke Oven Gas	1,772,791	1,275,643	39.0	19,568,542	12,607,943	55.2
(d) Total Gas Produced	7,225,024	7,120,733	1.7	75,354,647	74,269,992	1.7
Coke Oven Gas Purchased	358,491	297,747	20.4	3,681,494	3,110,031	18.4
Total Gas Produced and Purchased	7,583,515	7,418,480	2.2	79,036,141	77,380,023	2.1

STATE OF NEW JERSEY

(Data reported by 3 companies whose sales constitute 90% of the total sales of gas in the state of New Jersey)

Customers	803,167	804,613	—0.3*		See November	
Gas Sales (MCF)	2,506,870	2,354,984	6.5	25,097,894	23,979,155	4.7
Revenue (Dollars)	2,978,675	2,843,597	4.8	30,663,577	29,381,383	4.4
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas Made	1,365,837	1,298,575	5.2	15,572,341	14,850,661	4.9
Coke Oven Gas Purchased	1,146,967	1,075,073	6.7	11,770,910	11,314,136	4.0
Total Gas Produced and Purchased	2,512,804	2,373,648	5.9	27,343,251	26,164,797	4.5

* Due to billing irregularities.

STATE OF PENNSYLVANIA

(Data reported by 10 companies whose sales constitute 81% of the manufactured gas sales in the state of Pennsylvania)

Customers	700,554	682,339	2.7		See November	
Gas Sales (MCF)	2,519,402	2,376,652	6.0	25,750,491	24,693,787	4.3
Revenue (Dollars)	2,536,536	2,486,208	2.0	26,640,952	26,022,330	2.4
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	1,361,643	1,652,792	— 17.6	15,195,768	16,585,367	— 8.4
(b) Coal Gas	102,069	297,949	— 66.0	1,194,620	3,280,486	—63.6
(c) Coke Oven Gas	81,753	86,888	— 5.9	912,693	966,589	— 5.6
(d) Oil Gas	147,441	——	—	430,927	——	—
(e) Total Gas Produced	1,692,906	2,037,629	— 16.9	17,734,008	20,832,442	—14.8
Coke Oven Gas Purchased	1,031,572	461,087	123.7	9,292,322	5,013,475	85.3
Oil Still Gas Purchased	82,525	78,816	4.7	829,719	803,664	3.2
Total Gas Produced and Purchased	2,807,003	2,577,532	8.9	27,856,049	26,649,581	4.5

STATE OF ILLINOIS

(Data reported by 8 companies whose sales constitute 94% of the total sales of gas in the state of Illinois.)

	Month of November			Eleven Months Ending November 30		
	1929	1928	Per cent Increase	1929	1928	Per cent Increase
Customers						
Domestic	1,182,538	1,154,367	2.4			
Householeating	10,314	8,624	19.6			
Industrial and Commercial	69,208	69,767	— 0.8		*See November*	
Miscellaneous	220	205	—			
Total (7 companies which segregate)	1,262,280	1,232,963	2.4			
Grand Total (8 companies)	1,267,599	1,238,140	2.4			
Gas Sales (MCF)						
Domestic	2,987,641	2,891,625	3.3	32,244,715	30,888,359	4.4
Householeating	346,001	260,526	32.8	2,565,971	2,008,724	27.7
Industrial and Commercial	1,448,658	1,352,731	7.1	15,648,017	13,956,599	12.1
Miscellaneous	12,146	13,893	—	124,744	122,346	—
Total (7 companies which segregate)	4,794,446	4,518,775	6.1	50,583,447	46,976,028	7.7
Grand Total (8 companies)	4,804,605	4,528,828	6.1	50,688,369	47,074,302	7.7
Revenue (Dollars)						
Domestic	3,279,292	3,161,396	3.7	35,301,786	34,185,711	3.3
Householeating	271,216	208,486	30.1	2,029,435	1,592,599	27.4
Industrial and Commercial	1,089,334	1,030,729	5.7	11,730,828	11,102,791	5.7
Miscellaneous	7,627	8,351	—	76,127	73,744	—
Total (7 companies which segregate)	4,647,469	4,408,962	5.4	49,138,176	46,954,845	4.6
Grand Total (8 companies)	4,664,073	4,425,018	5.4	49,307,788	47,119,902	4.6
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	1,774,226	2,112,396	—16.0	17,592,268	23,361,995	—24.7
(b) Coal Gas	51,635	102,673	—49.7	673,234	1,129,153	—40.4
(c) Coke Oven Gas	819,393	731,664	12.0	8,931,167	7,413,015	20.5
(d) Total Gas Produced	2,645,254	2,946,733	—10.2	27,196,669	31,904,163	—14.8
Coke Oven Gas Purchased	2,620,304	1,940,686	35.0	27,475,594	18,746,571	46.6
Total Mfd. Gas Produced and Purchased	5,265,558	4,887,419	7.7	54,672,263	50,650,734	7.9
Natural Gas Purchased	8,232	6,610	24.5	84,589	80,030	5.7
Total Gas Produced and Purchased	5,273,790	4,894,029	7.8	54,756,852	50,730,764	7.9

NOTE: Of the eight reporting companies seven segregate customers, sales and revenue while one company reports only totals. The data shown for the domestic, householeating and industrial-commercial classifications are based only on the reports of the seven companies which segregate items.

STATE OF INDIANA

(Data reported by 6 companies whose sales constitute 90% of the total sales of manufactured gas in the state of Indiana)

Customers	288,565	275,034	4.9		*See November*	
Gas Sales (MCF)	1,083,510	1,004,351	7.9	12,005,292	10,862,822	10.5
Revenue (Dollars)	1,109,997	1,039,621	6.8	12,121,295	11,282,524	7.4
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	413,131	350,010	18.0	4,787,595	3,719,192	28.7
(b) Coal Gas	44,771	59,142	—24.3	530,784	629,269	—15.7
(c) Coke Oven Gas	393,055	370,364	6.1	4,216,420	4,106,700	2.7
(d) Other Gas	210	——	—	5,813	——	—
(e) Total Gas Produced	851,167	779,516	9.2	9,540,612	8,455,161	12.8
Coke Oven Gas Purchased	357,994	306,901	16.7	3,742,830	3,172,890	18.0
Total Mfd. Gas Produced and Purchased	1,209,161	1,086,417	11.3	13,283,442	11,628,051	14.2
Natural Gas Purchased	41,008	35,131	16.7	430,265	405,925	6.0
Total Gas Produced and Purchased	1,250,169	1,121,548	11.5	13,713,707	12,033,976	14.0

STATE OF MICHIGAN

(Data reported by 4 companies whose sales constitute 91% of the total sales of gas in the state of Michigan)

	Month of November			Eleven Months Ending November 30		
	1929	1928	Per cent Increase	1929	1928	Per cent Increase
Customers						
Domestic	607,133	575,889	5.4			
Househeating	1,251	851	47.0		*See November*	
Industrial and Commercial	7,272	5,421	34.1			
Total	615,656	582,161	5.8			
Gas Sales (MCF)						
Domestic	1,994,896	1,915,436	4.1	22,298,379	20,569,976	8.4
Househeating	79,521	54,124	46.9	617,841	395,069	56.4
Industrial and Commercial	689,612	695,790	— 0.9	8,818,410	7,598,761	16.0
Miscellaneous	526	1,002	—	6,967	10,476	—
Total	2,764,555	2,666,352	3.7	31,741,597	28,574,282	11.8
Revenue (Dollars)						
Domestic	1,850,506	1,781,173	3.9	20,603,645	19,017,400	8.3
Househeating	60,527	40,746	48.6	465,755	292,932	59.0
Industrial and Commercial	520,744	509,543	2.2	6,376,202	5,533,940	15.2
Miscellaneous	2,717	3,320	—	31,883	40,160	—
Total	2,434,494	2,334,782	4.3	27,477,485	24,884,432	10.4
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	856,198	829,159	3.3	12,118,724	8,978,460	35.0
(b) Coal Gas	424,718	522,255	—18.7	4,560,101	5,662,008	—19.5
(c) Coke Oven Gas	455,323	306,810	48.4	4,798,830	3,347,398	43.4
(d) Other Gas	274	263	—	2,942	3,366	—
(e) Total Gas Produced	1,736,513	1,658,487	4.7	21,480,597	17,991,232	19.4
Coke Oven Gas Purchased	1,099,651	1,055,398	4.2	11,141,830	11,373,595	— 2.0
Total Gas Produced and Purchased	2,836,164	2,713,885	4.5	32,622,427	29,364,827	11.1

STATE OF WISCONSIN

(Data reported by 7 companies whose sales constitute 91% of the total sales of gas in the state of Wisconsin)

Customers						
Domestic	223,039	212,701	4.9			
Househeating	826	630	31.1			
Industrial and Commercial	9,700	8,257	17.5		*See November*	
Total (5 companies which segregate)	233,565	221,588	5.4			
Grand Total (7 companies)	289,046	271,102	6.6			
Gas Sales (MCF)						
Domestic	634,425	587,435	8.0	6,665,816	6,334,838	5.2
Househeating	43,563	30,586	42.4	336,028	208,439	61.2
Industrial and Commercial	253,917	238,523	6.5	2,707,077	2,446,181	10.7
Total (5 companies which segregate)	931,905	856,544	8.8	9,708,921	8,989,458	8.0
Grand Total (7 companies)	1,129,069	1,048,785	7.7	11,805,008	10,882,342	8.5
Revenue (Dollars)						
Domestic	626,154	586,161	6.8	6,603,341	6,342,368	4.1
Househeating	30,456	21,477	41.8	236,049	145,121	62.7
Industrial and Commercial	182,799	169,879	7.6	1,931,065	1,772,840	9.0
Total (5 companies which segregate)	839,409	777,517	8.0	8,770,455	8,260,329	6.2
Grand Total (7 companies)	1,056,462	989,057	6.8	11,091,122	10,370,595	6.9
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	230,985	420,582	—45.1	3,739,733	4,619,175	—19.0
(b) Coal Gas	430,902	422,728	1.9	4,712,464	3,994,016	18.0
(c) Total Gas Produced	661,887	843,310	—21.5	8,452,197	8,613,191	1.9
Coke Oven Gas Purchased	588,706	305,936	92.4	4,987,532	3,658,352	36.3
Total Gas Produced and Purchased	1,250,593	1,149,246	8.8	13,439,729	12,271,543	9.5

NOTE: Of the seven reporting companies, five segregate customers, sales and revenue while two companies report only totals. The data shown for the domestic, househeating and industrial-commercial classifications are based only on the reports of five companies which segregate items.

STATE OF CALIFORNIA

(Data reported by 4 companies whose sales constitute 76% of the total sales of gas in the state of California)
(Two companies distribute Natural Gas*)

	Month of November			Eleven Months Ending November 30		
	1929	1928	Per cent Increase	1929	1928	Per cent Increase
Customers	1,095,843	1,085,868	0.9		See November	
Gas Sales (MCF)	9,306,409	6,908,206	34.7	83,809,743	67,599,630	23.9
Revenue (Dollars)	4,487,573	4,633,170	— 3.1	49,250,073	45,077,364	9.3
Gas Produced and Purchased (MCF)						
Gas Produced						
(a) Water Gas	25,729	25,432	1.2	244,125	190,191	28.4
(b) Oil Gas	1,984,408	2,424,752	—20.0	24,287,835	22,931,028	5.9
(c) Total Manufactured Gas Produced	1,974,137	2,450,184	—19.4	24,531,960	23,121,219	6.1
Natural Gas Purchased	8,438,953	5,594,438	50.9	69,664,735	53,883,460	29.3
Total Gas Produced and Purchased	10,413,090	8,044,622	29.4	94,196,695	77,004,679	22.3

* Pacific Gas & Electric Company changing over to Natural Gas.

Employee Publications

(Continued from page 81)

—in getting a better job—in making more money. He wants more of the "necessary luxuries," and therefore is interested in anything that has a bearing on his work. Naturally, when he receives a publication from the company he expects to find something of importance about the company's activities in it. And frequently he is disappointed.

There is no exact formula for making an employee paper, so there is a marked difference of opinion as to how it should be done—and why.

At editor's meetings, I have listened to long discussions on the effect of using baby pictures of employees and pictures of employees' children; on the great importance of using plenty of art work and fancy printing; whether it is better or not to use a running head; whether one face of type will turn the trick better than another, but very little about the text. That was taken for granted.

That is what, it seems to me, we should be concerned about. One should readily be able to tell from the contents of a public utility employee publication that it is a public utility employee publication. Otherwise, how is its existence justified?

The more a public utility employee knows about the business the more valuable he is. To his friends and acquaintances he is the company. He is likely to be the first to hear their grievances, imagined or real, and they form their impressions of the company's integrity and service from the information he can give them or on how he is able to straighten out their troubles. He is a good or bad public relations maker, largely depending upon what he knows about the business. The effect on the public is probably very nearly the effect of the average employee multiplied by the number of employees in the organization.

Providing a public utility is large enough to support one, an employee paper can be made of real value as a supplement to specialized employee training. Its type must depend upon the conditions. You can spend too much or too little. A magazine lends itself better to illustrating. It is more likely to find a place on the living room table and be thoroughly read. The make-up should be attractive and easy to read. It should confine itself to the company, the industry and to the news of the organization that is worth printing and let it go at that. From operations of nearly every utility a wealth of copy can be made available in an interesting manner, and any good printer can complete the job. Every issue of such a paper will supply information and news to employees and enable them to build up a complete picture of the company's operations and keep posted on what is occurring of importance in the organization, much as their daily newspapers keep them informed as to what is going on in the community or elsewhere. If the organization is small and compact, the editor can learn something from the small town newspaper in judging news values. If it is large and scattered, he is wise to make his paper a little less intimate. In either case he should be prodigal with by-lines and credit for the copy furnished to him by the members of the organization.

Such a paper will find a welcome in the employees' homes and will be of interest even to the casual reader.

If it does that, has the paper not accomplished its purpose? After all, is not its function to inform a definite group of workers whose efforts are directed toward one accomplishment?

The employee magazine cannot explain away vagueness in policy. If a company's policy is not clean cut, no nicely-worded phrases in its publication will make its employees think that it is. The successful publication must have more than the financial backing of the management. It is like the newspaper, which owes its success to the confidence and support of the public. It must have the confidence and support of the organization it represents—both management and employees. A newspaper without public support soon fades out of the picture for economic reasons. An employee publication with only the financial support of the management and without the confidence of the employees will hang on as long as the company pays the bill, but it will fail in its purpose.

Associations Affiliated with A. G. A.

Canadian Gas Association

Pres.—Kenneth L. Dawson, Nova Scotia Light & Power Co., Ltd., Halifax, N. S.
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Colorado Utilities Association

Pres.—H. S. Robertson, Denver Tramway Corp., Denver, Colo.
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Chairman Gas Section—R. Van Vliet, New York & Richmond Gas Co., Staten Island, N. Y.
Sec.—C. H. B. Chapin, Grand Central Terminal, New York, N. Y.

Illinois Gas Association

Pres.—E. E. Lungren, Western United Gas & Electric Co., Aurora, Ill.
Sec.-Tr.—George Schwaner, 305 Illinois Mine Workers Bldg., Springfield, Ill.

Indiana Gas Association

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Michigan Gas Association

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Oklahoma Utilities Association

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Mgr.—E. F. McKay, 1020 Petroleum Bldg., Oklahoma City, Okla.

Pacific Coast Gas Association

Pres.—F. H. Bivens, Southern Counties Gas Co., Los Angeles, Calif.
Mang. Dir.—Clifford Johnstone, 447 Sutter St., San Francisco, Calif.

Pennsylvania Gas Association

Pres.—W. A. Norris, Lebanon Valley Gas Co., Lebanon, Pa.
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Pennsylvania Natural Gas Men's Association

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Southern Gas Association

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Southwestern Public Service Association

Pres.—Knox Lee, Southwestern Gas & Electric Co., Marshall, Texas.
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The Public Utilities Association of Virginia

Pres.—C. B. Short, Roanoke Railway and Electric Co., Roanoke, Va.
Sec.— C. O. Robertson, P. O. Box 537, Roanoke, Va.

Wisconsin Utilities Association

Pres.—G. W. Van Derzee, The Milwaukee Electric Railway & Light Co., Milwaukee, Wis.
Exec. Sec.—J. N. Cadby, 105 Wells St., Milwaukee, Wis.

Twelfth Annual Convention of the American Gas Association
Atlantic City, N. J. - - - October 13-17, 1930

Employment Bureau

SERVICES REQUIRED

Old Established Manufacturer of small gas appliance accessories located in the Middle West has opening for man with creative or inventive ability for the design and development of new devices. State age, education, experience and salary desired in first letter. **0155.**

Large Eastern Utility (New York State) desires a few recent technical graduates to specialize in gas engineering. Applicants should give full particulars as to education, experience, references, etc. **0156.**

Sales Engineers wanted by large public utility in the Middle-West. Experienced in commercial and residential heating. Must be a high school graduate. College graduate from an engineering course preferred. Permanent position. Please state age, experience, education and salary expected. **0158.**

Engineer Wanted—A large utility in the South has an opening for a good man, in the Industrial Department. He should have some technical education and some experience, not necessarily in gas. Give all details. **0159.**

Wanted—Assistant to executive, thoroughly experienced engineer-salesman, capable as organizer and competent to analyze and develop house heating, industrial applications and appliance sales. Prefer single man although not essential. Must be firm believer in stability of gas industry, energetic and of unquestioned integrity. Must be able to submit record of achievement. **0160.**

Experienced Cost Analyst capable of independent work in development of costs and rates for a Middle West gas and electric utility. Applicant should give resume of education and experience, salary desired and include a recent photograph. **0161.**

Experienced industrial gas salesmen for large operating gas company. **0163.**

Salesmen to sell gas to industries. Experienced men preferred. **0164.**

Graduate gas engineer wanted by Eastern New York public utility. Five or six years experience in gas production and/or distribution and transmission work in connection with high and low pressure systems. Give age, education, experience and references. **0165.**

SERVICES OFFERED

Gas Engineer, College education, with 12 years experience, first four years with Coal Gas & Electric Co., last eight years as manager of small Water Gas Co., desires position as manager or assistant manager of a gas or combination company. **285.**

A Technically Educated Gas Engineer, now employed, with 15 years experience in Coal and Water Gas Operation, Distribution and Industrial Sales, desires new connection. **299.**

Engineer, technically educated, with wide experience in steam engineering, operation and five years Superintendent of Customer's Service Department of a large gas company. Desires connection preferably where both experiences can be used to advantage. **302.**

Available, New Business and Commercial Manager. Age 30, married. Has successful record merchandising gas appliances, house heating, etc., with Public Utility. Desires position in Commercial Field. Technical education and familiar with Engineering problems and Office routine. Good executive. **303.**

CONFIDENTIAL SERVICE

A confidential service open to company and individual members for which no charge is made. Space does not always permit publishing the requests of all applicants for positions but all applications filed on the regular application blank will be submitted to companies requiring the services of executives, engineers, operators, salesmen, etc.

The first "help wanted position" appeared under Key No. 1 in the 1913 N.C.G.A. Bulletin; and in the A.G.A. Monthly the first advertisement under Key No. 1 appeared in the November-December issue, 1919, so that this Bureau for many years has served the interests of employers and employees in fitting the right man to the right job.

The standards set by the former director of this activity, the late George G. Ramsdell, were exceedingly high and because of his willingness and courtesy he will long be remembered with gratitude by the hundreds in the industry who have passed through his hands these many years.

All advertisements for this page should be received at A.G.A. Headquarters not later than the seventh of the month.

Meter Foreman desires position with gas company. Experienced in all makes of meters. Best of references to character and ability. **305.**

Gas Engineer, college education, six years' experience in gas distribution, both H.P., M.P. and low pressure, and water-gas manufacturing from 3,000 M per day plant to 15,000 M per day plant, and general gas company construction, desires engineering position as manager, assistant manager, or superintendent. **306.**

Executive, able to qualify as manager would like to make change. **307.**

Available, New Business and Commercial Manager or Supervisor. Age 35, married. Has successful record merchandising gas appliances, house heating, etc., with Public Utility. Desires position in Commercial Field. Technical education and familiar with Engineering problems and Office routine. Good executive. **308.**

Commercial manager for 10 years of large Southern company with 8000 meters desires new connection. Is 53 years old. Experienced in industrial work and hotel and restaurant business, as well as advertising and general duties of commercial manager. Speaks Spanish. Good references. **309.**

Utility Executive Available—Public Utility Executive available as President or Vice-President of holding company or operating company, or as Utility Adviser to Bank, Investment Trust, Brokerage or Investment House. Have had twenty years' experience in all branches of Utility business, including organization, financing, construction, operation, public relations and sales. Gas, natural and manufactured, electricity, ice, heat, water, merchandise and securities. **310.**

Public Utility Executive, capable management, medium-sized property, has had long experience all branches both gas and electric utilities, versed in sales management, public relations, accounting, rate revision and Commission presentation. Desire connection with Public Utility where residence in or near New York City is possible. **312.**

Manufacturer's Executive, having extensive manufacturing experience, in gas and coal range lines, also successful record in sales representation and management, desires to associate with progressive manufacturer. Compensation to be based on actual accomplishments. **313.**

Public Relations Executive, available. Experienced as newspaper executive, special writer, organizer and public contact man. Excellent references. **314.**

Specialist in tar utilization and by-product coke manufacture desires responsible position. Capable of directing large scale operation. **316.**

Successful industrial engineer of several years broad experience; also technically trained in production and distribution; college graduate. **317.**

Industrial sales engineer with house heating management experience can furnish best of references from all previous utility employers. East or middle west location desired. **318.**

Combustion Engineer. Two Chemistry Degrees. Wide Industrial and Sales Engineering Experience. Specialist in Fuel Economics for Steel, Glass, Ceramics and General Manufactures. Handles men. Very familiar with Gas Manufacture, Mixed Gases, and their applications. **319.**

Gas Engineer with technical education and over fifteen years experience in the design, construction and operation of all types of coal carbonizing plants desires to make a connection where training and experience can be used to advantage. **320.**

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